

**Amendments to the Specification:**

Please replace the paragraph beginning at page 1, line 4, with the following:

The present application claims priority to USSN 60/421,989, filed October 29, 2002, and USSN 60/512,251, TTC Ref. No. 021044-005810, filed October 17, 2003, each herein incorporated by reference in their entirety.

Please replace the paragraph beginning at page 4, line 23, with the following:

--Figure 14 shows that Axl RNAi reduces Axl protein expression. Axl 2 = SEQ ID NOS:61 and 62; Axl-2 = SEQ ID NO:63; Axl2 = SEQ ID NO:64; Axl4 = SEQ ID NOS:65 and 66; Axl4.2 = SEQ ID NOS:67 and 68; Axl-4 = SEQ ID NO:69; Axl4 = SEQ ID NO:70; Axl4.2 = SEQ ID NO:71.--

Please replace the paragraph beginning at page 11, line 15, with the following:

--The terms "identical" or percent "identity," in the context of two or more nucleic acids or polypeptide sequences, refer to two or more sequences or subsequences that are the same or have a specified percentage of amino acid residues or nucleotides that are the same (i.e., about 70% identity, preferably 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or higher identity over a specified region (e.g., SEQ ID NO:1 or 2 SEQ ID NO:3 or 4), when compared and aligned for maximum correspondence over a comparison window or designated region) as measured using a BLAST or BLAST 2.0 sequence comparison algorithms with default parameters described below, or by manual alignment and visual inspection (see, e.g., NCBI web site or the like). Such sequences are then said to be "substantially identical." This definition also refers to, or may be applied to, the compliment of a test sequence. The definition also includes sequences that have deletions and/or additions, as

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well as those that have substitutions. As described below, the preferred algorithms can account for gaps and the like. Preferably, identity exists over a region that is at least about 25 amino acids or nucleotides in length, or more preferably over a region that is 50-100 amino acids or nucleotides in length.--

Please replace the paragraph beginning at page 38, line 8, with the following:

--Common linkers such as peptides, polyethers, and the like can also serve as tags, and include polypeptide sequences, such as poly gly Gly sequences of between about 5 and 200 amino acids (SEQ ID NO:72). Such flexible linkers are known to persons of skill in the art. For example, poly(ethylene glycol) poly(ethylene glycol) linkers are available from Shearwater Polymers, Inc. Huntsville, Alabama. These linkers optionally have amide linkages, sulfhydryl linkages, or heterofunctional linkages.--

Please replace the informal "SEQUENCE LISTING at pages 50-78 with the following:

--SEQUENCE LISTING

Ax1

GH2\_420\_G3F1 (SEQ ID NO:1)

CTCCAGGGGTTCAAGATAACCTCCACCCCTCATCCATGTTGACATAGAGGATTCGTCAGGCTCTGGCAGGAGGCA  
AGG

GH2\_420\_G3R1 (SEQ ID NO:2)

ATCTATCTAACCACTGTGCTGGGTTCTGGCCCTGCCTGCCAGGAGCCTGACGAAATCCTCTATGTCAACA  
TGGATGAGGGTGGAGGTTATCCTGAACCCCTGGAG

>gi|21536465|ref|NM\_021913.2| Homo\sapiens AXL receptor tyrosine kinase  
(AXL), transcript variant 1, mRNA (SEQ ID NO:3)

GAGTGGAGTCTGGAGGAATGTTTACCAAGACACAGAGCCCAGAGGGACAGCGCCCAGAGCCCAGATAGAG  
AGACACGGCCTCACTGGCTCAGCACCAGGGTCCCTCCCTCCCTCAGCTCCCTCCCTGGCCCTTTAA  
GAAAGAGCTGATCCTCCCTCTTGAGTTAACCCCTGATTGTCCAGGTGGCCCTGGCTCTGGCCTGGT  
GGCGGGAGGCAAAGGGGGAGCCAGGGCGGAGAAAGGTTGCCAAGTCTGGAGTGAGGAAGGAGGCA  
GGGTGCTGAGAAGGCGGCTGCTGGCAGAGCCGGTGCAAGGGCCTCCCTGCCGCTGTGCCAGGCAGG  
CAGTCCAATCCGGGAGCCTGGAGCTGGGGGAGGCCGGGACAGCCGGCCTGCCCTCCCCCTCCCCCG  
CTGGGAGCCAGCAACTCTGAGGAAAGTTGGCACCCATGGCGTGGCGGTCCCCCAGGATGGCAGGGT

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CCCGCTGGCCTGGCTTGGCGCTGTGCGGCTGGCGTGCATGGCCCCCAGGGCACCCAGGCTGAAGAA  
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CACCCAGACCAGGTGCCCTGGGTGAGGATGAACAGGATGACTGGATAGTGGTCAGCCAGCTCAGAATC  
ACCTCCCTGCAGCTTCCGACACGGGACAGTACAGTGTGTTCTGGACATCAGACCTCGTGT  
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CAGGATGCTGCCCCCTGGCACGGCTCCAGGTACGGCCACAGCGCAGCCTGCATGTTCCAGGGCTGA  
ACAAGACATCCTCTTCTCGCAAGGCCATAACGCCAAGGGGTCAACCACATCCCGCACAGCCACCAT  
CACAGTGCTCCCCCAGCAGCCCCGTAACCTCCACCTGGTCTCCCGCCAACCCACGGAGCTGGAGGTGGCT  
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GGATGGGATCCAGGGGAGAACCCAGACCCCCCAGAGGAGCCCTCACCTCGCAAGCATCCGTCCCCC  
CCATCAGCTCGGCTAGGCAGCCTCCATCCTCACACCCCTTATCACATCCCGTGGCATGCAACCAGCAGC  
CAGGGCCCTCATCCTGGACCCACTGGCTTCTGTGGAGACGCCGGAGGGAGTGCCTGGGCCCCCTG  
AGAACATTAGTGCTACCGGAATGGAGCCAGGCTTCGTGCATGGCAAGAGCCCAGGGCTGGCCTGCA  
GGTACCTGTTAGGGTACCGGCTGGCGTATCAAGGCCAGGACACCCAGAGGTGCTAATGGACATAGGG  
CTAAGGCAAGAGGTGACCCCTGGAGGCTGCAGGGGACGGGCTGTGTCATGACAGTGTGTGGCAG  
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ACAGCCAGTCCACCAGCTGGTAAGGAACCTCAACTCCTGCCTCTCGTGGCCCTGGTGTATGACTG  
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CAAGTCCTACAGTCGCGGACCACTGAAGCTACCTTGAACAGCCTGGGATCAGTGAAGAGCTGAAGGAG  
AAGCTCGGGATGTGATGGTGGACCGACAAGGTGGCCCTGGGAAGACTCTGGGAGAGGAGAGTTG  
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TGCATCTGCACGAGGTCAAGAGCTGGAGGATTCTCTGAGTGAAGCGGCTGATGAAGGAATTGACCAT  
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AGTGTACCTGCCACTCAGATGCTAGTGAAGTTCATGGCAGACATGCCAGTGGCATGGAGTATCTGAGT  
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TTATGACTATCTGCCAGGGAAATCGCCTGAAGCAGCCTGCGACTGTCTGGATGGACTGTATGCC  
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CTCCACCTGTTACTCCCTCTCAGGATCCAAGCTAAGCACTGCCACTGGGGAAAACCTCACCTCCACTT  
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TGACCTCAAGTGTACTGCCACCTCAGCCTCCAAAGTGTGAGGATTACAGGACATGCCACTGCACTCA  
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TAAAGCCTCAAGGTTTAGGTTCTAAAGTCTAAGGTTCTGATTAGGAGCTAAGGCTCTATGAGTCTA  
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AGACATGGAGGTTCTAAGGCCAGGATTCTAAAGTGTGATGTTCTAAGGCTCTGAGAGTCTAGATTCT

GGCTGTAAGCTCTAGATCATAAGGCTCAAAATGTTATCTTCTCAAGTTCTAAGATTCTAATGATGATC  
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CCCCCTCAAGCCTGTGCAATGCATTAGGGATGCCTCTTCCCCCAGGGGATGGACATCTCCACCTT  
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>gi|21536466|ref|NP\_068713.2| AXL receptor tyrosine kinase isoform 1; AXL transforming sequence/gene; oncogene AXL [Homo sapiens] (SEQ ID NO:4)  
MAWRCPRMGRVPLAWCLALCGWACMAPRGTQAEESPFGNPGNITGARGLTGTLRCQLVQGEPPVHWL  
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FLEEPEDRTVAANTPFNLSCQAQGPPEPVDLLWLQDAVPLATAPGHGPQRSLHVPGLNKTSSFSCEAHNA  
KGVTTSRATITVLPQQPRNLHLSRQPTELEVAWPGLSGIYPLTHCTLQAVLSDDMGIQAGEPDPP  
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VPLEAWRPGQAQPVHQLVKEPSTPAFWPWPWYVLLGAVVAAACVILALFLVHRRKKETRYGEVFEPTVE  
RGELEVRYRVRKSYSRRTTEATLNSLGISEELKEKLDRVMVDRHKVALGKTLGEGEFGAVMEQLNQDDS  
ILKVAVKTMKIAICTRSELEDLSEAVCMKEFDHPNVMRLIGVCQGSERESFPAPVVIILPFMKHDLHS  
FLYSRLGDQPVYLPTQMLVKFMADIASGMEYLSTKRFIHRDLAARNCMLENMSVCVADGLSKIYNG  
DYYRQGRIAKMPVKWIAIESLADRVTTSKSDVWSFGVTMWEIATRGQTYPGVENSEIYDYLQRGNRLKQ  
PADCLDGLYALMSRCWELNPQDRPSFTELREDLENTLKALPPAQPDEIYVNMDEGGGYPEPPGAAGGA  
DPPTQPDPKDSCSCLTAAEVHPAGRYVLCPTTPSAQPADRGSPAAPGQEDGA

>gi|21536467|ref|NM\_001699.3| Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 2, mRNA (SEQ ID NO:5)  
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AGACACGGCCTCACTGGCTCAGCACCAAGGGTCCCTCCCCCTCCAGCTCCCTCCCTGGCCCTTTAA  
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CAGGGCCCCCTCATCCTGGACCCACTGGCTTCTGTGGAGACGCCGGAGGGAGTGCCCCCTGGGCCCCCTGAGAACATTAGTGTACCGCGGAATGGGAGGCCAGGCCTCGTCATTGGCAAGAGGCCGGCGCCCTGCA  
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TCTTAGCTATCATCTGCTCCTCCCCAACGTTGGGGTGTGCCCTCAAGCCTGCAATTGCA  
GGGATGCCCTCTTCCCCAGGGGATGGACGATCTCCACCTTCCGGGCACTGTTGCCCTCAGGGCTCAGG  
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>gi|21536468|ref|NP\_001690.2| AXL receptor tyrosine kinase isoform 2; AXL transforming sequence/gene; oncogene AXL [Homo sapiens] (SEQ ID NO:6)  
MAWRCPRMGRVPLAWCLALCGWACMAPRGTQAEESPFGNPGNITGARGLTGTLRCQLQVQGEPPVHWL  
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VHWQEPRAPLQGTLGYRLAYQGQDTPEVLMIDIGLRQEVTLELQGDGSVSNLTVCAAYTAAGDGPWSLP  
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QPVYLPTQMLVKFMADIASGMEYLSTKRFIHRDLAARNCMLNENMSVCVADFGLSKKIYNGDYYRQGRIA  
KMPVKWIAIESLADRVYTSKSDVWSFGVTMWEIATRGQTPYPGVENSEIYDYLRQGNRLKQPADCLDGLY  
ALMSRCWELNPQDRPSFTELREDLENTIKALPPAQEPDEILYVNMDEGGGYPEPPGAAGGADPPTQPDPK  
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## Tubulin cofactor D

**GH1-13-PCR-G3F1 (SEQ\_ID\_NO:7)**  
CTTCCGCAGCAGGGCTGGTTGCTCTCAGGGAGTCTGCAGCCATCGAGGCACCTGAGGACAGTGGCAGGCATAGGGCA  
AACAGTCTTCACGTTTCCATGTTAAATATTGTGCCAGGGCCTGCAGCGTCCCATCCATGGTGATGACCCCCCTGC  
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>gi|8400735|ref|NM\_005993.2| Homo sapiens tubulin-specific chaperone d (TBCD), mRNA (SEQ ID NO:8)  
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GCCCGAGGAGGAGGCGGAGGACGAGACACTGGCCTTGGCGCGCTGGAAGCGTTCGGAGAGCGC  
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GATGTAGAGCCTGTTAGATTGGTCACAATTCAAAGGACCATGAAGCTGGAAACCCGCT  
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GGGTGCGCTGCAGCGTGGCACCAACGTCAGGGACGCCGCTGTCAGCTGTCGCTGCCCTCGCGCTGCC  
TATGAGCCTCAGGAGCTGAAGCCCTTGTGACTGCAATCTGAGTGCACGGTATTGCTGCCGTGTTG  
ACCGAGACATAAAACTGCAAGAGCAGCTGCGCCCTCCAGGAGAATGTGGGGAGACAGGGCACTT

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CCCTCATGGTATTGATATTTGACCACAGCTGACTATTTGCCGTCGGTAACAGATCCAACCTGTTCCCTG  
 GTTATAAGTGTGTTATTGCCGGCTTCCTGAGTACACGCAGCCAATGATAGACCACCTGGTTACCATGA  
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 TGCTCTATGCAGTGAATATTACATGAAGGAGCCGGGAGGCAGATCCCGCAATTCAAGGAGGAGCTGATC  
 ACGCAGTACCTGGCTGAGCTCGAACCCCGAGGAGATGACTCGCTGAGGCTCTCGTGGCCTTGGCCTGGGCG  
 CCCTCCAGGCTTCTGAAAGGCCGGCTCCAGCAGGTTCTCACAGGTTAACAGCAGTTACCCACAC  
 TTCCCCCGAGGACGTAAGTTGCTGAGTCCAGGAGAGACGGCTGAAGGCCATTGCAGGAGGATTTGCCAG  
 ACTGTTGGTGTGAAAGCAGGAGCCCGAGACAGAAGCTGTGCGGAGAGAATGTTCCAGATTACTGTG  
 CGCTGCTGGGCTGCATGGACACTACACCACGGACAGCAGAGGGGACGTGGCACCTGGTCCGCAAGGC  
 CGCCATGACCAGTCTGATGGATCTGACACTCTGCTGGCTCGAGCCAGCTGAGCTGATCGAGGCCAT  
 ACCTGTGAGCGCATCATGTGCTGTGGCCAGCAGGCCAGTGAGAAGATTGACCCTTCCGTGCTCACG  
 CCGCCAGCGTGTCTGACGCTCTGCACTTGACAGCCCTCCATCCCCACGTGCCCCACCGAGGAGA  
 ACTGGAAAAGCTGTTTCCAGGTCGATGTGGCTCCGTGAACGGAGTGACCTCCAGGCCTCCCA  
 CGCATACCCAGCTCCTGGGCTGCCACCTACCGCTACCACGCTCTGCTGGGCTAGTCGTGCTCCCTGG  
 GCGGCTTGACGGAGTCGACGATCCGGCACTCCACCCAGAGCCTTTGAGTACATGAAGGGCATTCAAGAG  
 CGACCCGAGGCCCTGGGAGCTCAGCGGGACCCTCTGAGATCTTGAGGACAACCTCTGAATGAG  
 AGGGTGTCCGTGGCGCTGCTGAAGACGCTGGACCACGTGCTCACCCACGGCTGCTTCGACATCTCACCA  
 CGGAGGAGGACCACCCCTTGCTGAGTTGCTGCGCTCTGTAAGAAAGAAATCAAGAATTCAAAAGA  
 TATCCAGAAAGCTCCTGTCAGGCATCGCAGTGTCTGCGGATGGTGCAGTCCCGGAGCTGAGGAGG  
 CAGGCCCTCTGAGCTGTGCTGCTCTGCCACGTTCCCGCTGATCCGAAGACCACGGCAGCC  
 AGGTGTACGAGACATTGTCACCTACAGTGACGCTGGGGCGGATGTGCTGGACGAGGTGGTACTGT  
 GCTCAGTGACACTGCGTGGGACCGGGAGCTGAGAGAGCAGCAGCAACCGCTGTGACCT  
 CTGGCGTACCCAGGCCAGCTGGTGCCTGAGGGAGGCCAGTGGAAAGCCTGAGGAGCCATACC  
 TCACCCCTGCTGGTGAAGGGTAGCGCTGGCCCTGGAGGCTGGCACTAGCTGACAGCTTCTGCACACTG  
 TCCAGCTGTGAAGGGTAGCGCTGGCCCTGGAGGCTGGCACTAGCTGACAGCTTCTGCACACTG  
 GCGCTCTGGTACTGGGTTGGACGCCCTGCTGCCTCACTGAACACAAATGTGCTCCTATAAAATCATG  
 TACCAAG

>gi|8400736|ref|NP\_005984.2| beta-tubulin cofactor D [Homo sapiens] (SEQ ID NO: 9)

MALSDEPAAGGPEEEAEDET LAFGAALEAFGE SAETR ALLGRLRE VHGGGAEREVALERFRVIMDKYQEQ  
 PHLLDPHLEWMNLLLDIVQDQTPASLVH LAFKFLYIITKVRGYKTFRLFPHEVADVEPVLDLVTION  
 PKDHEAWETRYM LLLWLSVTCLIPFDFSRLDGNLLTQPGQARMSIMDRILQIAESYLVSDKARDAAVL  
 VSRFIRPDVKQSKMAEFLDWSLCNLARSSQTMQGVITMDGTLQALAQI FKHGKREDCLPYAATVRLCL  
 DGCR LPESNQTLRLKLGVLVQRLGLTFLKP KVA AWRYQRGCRSLAANLQLTQGQSEQKPLILTEDDE  
 DDDVPEGVERVIEQLLVGLKDVT VVRWSA KIGR MAGR LPRALADDVVG SVLDCFSQETDKAWHGGC  
 LALAE LGRG LLLPSRLVDVVA VILK ALTYDEKRGAC SVGT NVRDA ACYVCCAFARAYEPQELKPFVTAI  
 SSALVIAAVFDRDINCRRAASAAFQEN VGRQGT FPHGIDILTTADY FAVGNRSNCFLVISVFIAGFPEYT  
 QPMIDHLVTMKISHWDGVIRELAARALHNLAQQAPEFSATQVFPRLSMTLSPDLHMRHGSILACAEVAY  
 ALYKLAQENRPVTDHLD EQAVQGLKQI HQQLYDRQLYRGLGGQLMRQAVCVLIEKLSLSKMPFRGDTVI  
 DGWQWLINDTLRHLH LISSHRSRQMKDAAVSAL AALCSEYYMKEPGEADPAI QEE LITQYLAELRNPEEM  
 TRCGFSLALGALPGFLLKGR LQQLTGLRAVTH TSPEDV SFAESRRDGLKAIARICQTVGVKAGAPDEAV  
 CGENVSQIYCALLGCMDDYTTDSRGDVGTWVRKAAMTSLMDL TLLLARSQPELIEAHTCERIMCCVAQQA  
 SEKIDR FRAHAASVFTL LHFDS PPIPHVPHRGELEKLFPRSDV ASV NWSAPS QAFPRITQLLG LPTYRY  
 HVLLGLVSVLGG LTESTIRHSTQSLFEYMKGIQSDPQALGSFSGTLLQI FEDNLLNERVSVPLLKLDHV  
 LTHGCFDIFTTEEDHPFAVKLLALCKKEIKNSKDIQKL LSGIAVFCGMVQFPGDVRRQALLQLCLLCHR

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FPLIRKTASQVYETLLTYSVVGADVLDEVTVLSDTAWDAELAVVREQRNRLCDLLGVPRPQLVPQPG  
AC

Transglutaminase 2

GH1-173-PCR-G3F1 (SEQ ID NO:10)

CCAGTGTGCTTGGGTTCTCGGGCACCCCTGGATCTCCCCAAACTCATTGCGGAAGTACTCGATGAGAAGGTTGCTGTT  
CTGGTCATGGGCCGAGTTGTAGTTGGTCACGCGGGTAGGGATGCCAGGCACCTCAGCACTGTGCAGGCCACGG  
CGGCAAGACCCAGCACTGGCCATACTTGACCGCTGGCAGCCGGTTCTTCAGCGCCAGGATGTCCACGCTGC  
CGATCCAGGACATGGGCTGACCCGAGACCCAGCACAGTGGTTAGATGATAAAGCGGCCGCTGACTAGTCTGAGG  
TCTGATACTCACTGACTGTCGTA

gi|20141877|sp|P21980|TGM2\_HUMAN Protein-glutamine gamma-glutamyltransferase  
(Tissue transglutaminase) (TGase C) (TG(C)) (Tranglutaminase 2)  
(TGase-H) (SEQ ID NO:11)

MAEELVLERCDLELETINGRDHHTADLCREKLVVRRQPFWLTLHFEGRNYEASVDSLTSVVTGPAPSQE  
AGTKARFPLRDAVEEGDWTATVVDQQDCTLSQLTTPANAPIGLYRLSLEASTGYQGSSFVLGHFILLFN  
AWCPADAVYLDSEERQEVLTQQGFIYQGSAKFIKNIPWNFGQFEDGILDICLILLDVNPKFLKNAGRD  
CSRRSSPVYGRVVSGMVNCNDQGVLLGRWDNNYGDGVSPMSWIGSVDILRRWKHGCQRVKYQQCWVF  
AAVACTVLRCLGIPTRVVTNYNSAHQNSNLLIEYFRNEFGEIQGDKSEMIWNFHCVVESWMTRPDLQPG  
YEGWQALDPTPQEKGSEGTCCGPVPVRAIKEGDLSTKYDAPFVFAEVNADVDWIQDDGSVHKSINRSL  
IVGLKISTKSVGRDEREDITHTYKYPEGSSEEREAFTRANHNLKLAKEEETGMAMRIRVGQSMNMGSDFD  
VFAHITNNTAEEYVCRLLLCARTVSYNGLGPECGTKYLLNLNLEPFSEKSVPLCILYEKYRDCLTESNL  
IKVRALLVEPVINSYLLAERDLYLENPEIKIRILGEPKQKRKLVAEVSLQNPPLVALEGCTFTVEGAGLT  
EEQKTVEIPDPVVEAGEEVKVRMDLLPLHMGHLKLVNFESDKLKAVKGFRNVIIGPA

>gi|4759227|ref|NM\_004613.1| Homo sapiens transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM2), mRNA (SEQ ID NO:12)

AACAGGGCGTGACGCCAGTTCTAAACTTGAAACAAAACAAACTCAAAGTACACCCAAATAGAACCTCCT  
TAAAGCATAATCTCACGGAGGGTCTCGGCCAGTGGAGGCCAGTGGAGAGACCAATGCCGAGACCACACGGCCGAC  
CGAGGAGCTGGCTTAGAGAGGGTGTATCTGGAGCTGGAGACCAATGCCGAGACCACACGGCCGAC  
CTGTGCCGGAGAGCTGGTGGTGCACGGGCCAGCCTCTGGCTGACCCCTGCACTTGAGGGCCGCA  
ACTACCAGGCCAGTGTAGACAGTCTCACCTCACGTGCTGACCCGCCAGCCCTAGCCAGGAGGCCGG  
GACCAAGGCCGTTTCACTAAGAGATGCTGTGGAGGGTGAATGGACAGCCACCGTGGGACAG  
CAAGACTGCACCCCTCGCTGCAGCTCACCAACCCGCCAACGCCACATCGGCCTGTATGCCCTCAGCC  
TGGAGGCCTTCACTGGCTACCAGGGATCCAGCTTGTGCTGGGCCACTTCATTTGCTCTCAACGCCCTG  
GTGCCAGGGATGCTGTACCTGGACTCGGAAGAGGAGCGGGCAGGAGTATGTCCTACCCAGCAGGGC  
TTTATCTACCAAGGGCTGGCCAAGTTCATCAAGAACATACCTTGAATTGGCAGTTCAAGATGGGA  
TCCTAGACATCTGCTGATCCTTCTAGATGTCAACCCCAAGTCTGAAGAACGCCGGCGTGA  
CCGGCGCAGCAGCCCGTCTACGTGGCGGTGGTAGTGGCATGGCAACTGCAACGATGACCAAGGGT  
GTGCTGCTGGACGCTGGACAACAACACTACGGGACGGCTCAGCCCATGTCCTGGATCGGCAGCGTGG  
ACATCCTGGCGCTGGAAGAACACGGCTGCCAGCGCTCAAGTATGCCAGTGTGGTCTTCGCCGC  
CGTGGCCTGACAGTGTGAGGTGCCTAGGCATCCCTACCGCGCTGTGACCAACTACAACCTGGCCCAT  
GACCAAGAACAGCAACCTCTCATCGAGTACTTCCGCAATGAGTTGGGAGATCCAGGGTACAAAGAGCG  
AGATGATCTGGAACCTTCACTGCTGGGTGGAGTCGTGGATGACCCAGGCCACCTGCAGCCGGGGTACGA  
GGGCTGGCAGGCCCTGGACCCAACGCCAGGAGAAGAGCGAAGGAACGTACTGCTGTGGCCAGTTCCA  
GTTCGTGCCATCAAGGAGGGCAGCTGAGCACCAAGTACGATGCGCCCTTGTCTTGCGGAGGTCAATG  
CCGACGTGGTAGACTGGATCCAGCAGGACGATGGGTCTGTGCACAAATCCATCAACCGTCCCTGATCGT  
TGGGCTGAAGATCAGCACTAAGAGCGTGGGCCAGACGAGCGGGAGGATACCCACACCTACAAATAC  
CCAGAGGGGTCTCAGAGGAGAGGGAGGCCCTCACAAGGGCGAACCCACCTGAACAAACTGGCCGAGAAGG  
AGGAGACAGGGATGGCATGCGGATCCGTGGGCCAGACATGAACATGGCAGTGACTTGTACGTCTT

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TGCCACATACCAACAACACCGCTGAGGAGTACGTCGCCGCCCTGCTCTGTGCCGCCACCGTCAGC  
 TACAATGGGATCTGGGCCAGTGTGGCACCAAGTACCTGCTAACCTAACCCCTGGAGCCTTCTCTG  
 AGAAGAGCCTTCCTCTTGATCCTCTATGAGAAATACCGTACTGCCAACGGTCAACCTCATCAA  
 GGTGCCGCCCTCCTCGTGGAGCCAGTTATCAACAGCTACCTGCTGGCTGAGAGGGACCTTACCTGGAG  
 AATCCAGAAATCAAGATCCGGATCCTTGGGAGCCAAAGCAGAAACGCAAGCTGGTGGCTGAGGTGTCCC  
 TGCAGAACCCGCTCCCTGTGGCCCTGGAAGGCTGCACCTCACTGTGGAGGGGCCGGCTGACTGAGGA  
 GCAGAACGGTGGAGATCCCAGACCCCGTGGAGGAGGGAGGAAGTTAAGGTGAGAATGGACCTCGTG  
 CCGCTCCACATGGGCCCTCACAAGCTGGTGGTGAACCTCGAGAGCGACAAGCTGAAGGCTGTGAAGGGCT  
 TCCGAATGTCACTATTGGCCCCCTAAGGGACCCCTGCTCCAGCCTGCTGAGAGCCCCACCTTGAT  
 CCAAATCCTATCCCAAGCTAGTGAGCAAATATGCCCTTATTGGGCCAGACCCAGGGCAGGGTGG  
 GCAGCCTATGGGGCTCGGAATGGAATGTGCCCTGGCCATCTCAGCCTCTGAGCCTGTGGTCC  
 CCACTACCCCCCTTGCTGTGAGGAATGCTCTGTGCCAGAACAGTGGGAGCCCTGACCTGTGACTG  
 GGGCTGGGGTGGAGAGAGGAAGACCTACATCCCTCTGCCAGATGCCCTTGGAAAGCCATTGACC  
 ACCCACCATATTGTTGATCTACTTCATAGCTCCTGGAGCAGGAAAAAGGGACAGCATGCCCTTGGC  
 TGGATCAGGAATCCAGCTCCCTAGACTGCATCCCACCTCTCCATGACTGCACCCAGCTCCAGGGC  
 CCTTGGGACACCCAGAGCTGGGTGGGACAGTGTAGGCCAAGGTCCCTCACATCCCAGCAGCCAA  
 GCTTAATAGCCCTCCCCCTCAACCTCACCATTGTGAAGCACCTACTATGTGCTGGGTGCCTCCCACACTT  
 GCTGGGCTCACGGGGCTCCAACCCATTAACTACCATGGAAACTGTTGTTGGCGCTGCTCCAGGAT  
 AAGGAGACTGAGGCTTAGAGAGAGGAGGAGCCCCCTCACACCAGTGGCCTCGTGGTTATAAGCAAGGC  
 TGGGTAAATGTGAAGGCCAAGAGCAGAGCTGGGCCTCTGACTCTGAGTCCACTGCTCCATTATAACCC  
 CAGCCTGACCTGAGACTGTCGAGGGCTGTCTGGGGCTTTATCAAAAAAGACTCAGCCAAGACAAGG  
 AGGTAGAGAGGGACTGGGGACTGGGAGTCAGAGCCTGGCTGGTTCAGGTCCACGTCTGGCAGCG  
 ACTGCCTCTCCTCTGGCCTTGTTCCTGTTGTCAGAGGAGTGATTGAACCTGCTCATCTCAA  
 GGATCCTCTCCACTCCATGTTGCAATACACAATTCC

>gi|4759228|ref|NP\_004604.1| transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) [Homo sapiens] (SEQ ID NO:13)  
 MAEELVLERCDLELETNGRDHTADLCREKLVVRQPFWLTLHFEGRNYQASVDSLTSVVTGPAPSQE  
 AGTKARFPLRDAVEEGDWTATVVDQDCTLSQLTTPANAPIGLYRLSLEASTGYQGSSFVLGHFILLFN  
 AWCPADAVYLDSSEERQEYVLTQQGFIYQGSAKFIKNIPWNFGQFDGILDICLILLDVNPKFLKNAGRD  
 CSRRSSPVYGRVGSVMNCNDQGVLLGRWDNNYGDGVSPMSWIGSVDILRRWKNHGQRVKYQQCWVF  
 AAVACTVLRLGIPTRVVTNYNSAHQNSNLLIEYFRNEFGEIQGDKSEMIWFHCVVESWMTRPDQPG  
 YEGWQALDPTPQEKEGTYYCCGPVPVRAIKEGDLSTKYDAPFVFAEVNADVDWIQQDDGSVHKSIINRL  
 IVGLKISTKSVGRDEREDITHTYKYPEGSSEEREAFTRANHLNKLAEKEETGMAMRIRVGQSMNMGSDFD  
 VFAHITNNTAEEYVCRLLLCARTVSYNGILGPECGTKYLLNLTEPFSEKSVPLCILYKYRDLTESNL  
 IKVRALLVEPVINSYLLAERDLYLENPEIKIRILGEPKQKRKLVAEVSLQNPPLPVALEGCTFTVEGAGLT  
 EEQKTVEIPDPVEAGEEVKVRMDLVPLHMLHKLVNFESDKLKAvgFRNVIIGPA

>gi|13097680|gb|BC003551.1|BC003551 Homo sapiens, Similar to transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase), clone MGC:1193 IMAGE:3544757, mRNA, complete cds (SEQ ID NO:14)  
 CTCCGCCTCGGCACTGCCAGCCGCCAGTGGTCGACTTGGAGGGCTCGCCGCCAGTGGAGGGAGCCACC  
 GCCCCCGCCGACCATGGCGAGGGAGCTGGCTTAGAGAGGTGTATCTGGAGCTGGAGACCAATGGCCG  
 AGACCACACACGGCCGACCTGTGCCGGAGAAGCTGGTGTGCGACGGGGCCAGCCCTCTGGCTGACC  
 CTGCACTTTGAGGGCCCAACTACGAGGCCAGTGTAGACAGTCTACCTTCAGTGTGACCGGGCCAG  
 CCCCTAGCCAGGAGGCCGGACCAAGGCCGTTTCCACTAAGAGATGCTGTGGAGGGGTGACTGGAC  
 AGCCACCGTGGTGGACAGCAAGACTGCACCCCTCTCGCTGAGCTCACCAACCCGGCAACGCCCATC  
 GGCCCTGTATCGCTCAGCCTGGAGGCCTCACTGGCTACCAGGGATCCAGCTTGTGCTGGCCACTTCA  
 TTTTGCTCTCAACGCCCTGGTGCCAGCGGATGCTGTGACCTGGACTCGGAAGAGGAGCGGGCAGGAGTA  
 TGTGCTCACCAGCAGGGCTTATCTACCAAGGGCTGCCAAGTTCATCAAGAACATACCTGGAAATT  
 GGGCAGTTGAAGATGGGATCCTAGACATCTGCTGATCCTAGATGTCAACCCCAAGTTCTGAAGA  
 ACGCCGGCCGTACTGCTCCGCCAGCAGCCCCGTACGTGGCCGGTGGTGAATGGCATGGCAA

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CTGCAACGATGACCAGGGTGTGCTGGGACGCTGGACAACAACACTACGGGACGGCGTCAGCCCCATG  
 TCCTGGATCGGAGCGTGGACATCCTGCAGCGCTGGAAAGAACACGGCTGCCAGCGCGTCAAGTATGCC  
 AGTGCTGGGCTTCGCCCGTGCACAGTGTGAGGTGCTGGCATCCCTACCCGCGTGTGAC  
 CAACTACAACCTCGGCCATGACCAGAACAGAACCTCTCATCGAGTACTTCGCAATGAGTTGGGAG  
 ATCCAGGTGACAAGAGCAGATGATCTGAACTTCACTGCTGGTGGAGTCGTGGATGACCAGGCCGG  
 ACCTGCAGCCGGGTACGAGGGCTGGCAGGCCCTGGACCCAACGCCCAAGGAGAACAGCGAAGGGACGTA  
 CTGCTGTGGCCCATTCAGTTCAGTGTGCCATCAAGGAGGGCAGCTGAGCACCAAGTACGATGCGCCCTT  
 GTCTTGCAGGGTCAATGCCACGTGGTAGACTGGATCCAGCAGGACGATGGTCTGTGACAAATCCA  
 TCAACCCTCCCTGATCGTGGCTGAAGATCAGCACTAACAGAGCGTGGGCCAGACGAGCGGGAGGATAT  
 CACCCACACCTACAAATACCCAGAGGGCTCTCAGAGGGAGGGCCTCACAGGGCGAACCATGG  
 AACAAACTGCCGAGAAGGAGGGACAGGGATGCCATCGGGATCCGTGTGGCCAGAGCATGAACATGG  
 GCAGTACTTGCAGTCTTGCCACATACCAACAAACACCGCTGAGGAGTACGCTGCCGCTCTGCT  
 CTGTGCCCGACCGTCAGTACAATGGGATCTGGGCCAGTGTCAGCACCAAGTACCTGCTCAACCTC  
 AACCTGGAGGCTTCTCTGGTAAAGCCCTGTGTTCTGGAGCATTGACCGCCAACGTACAACATGC  
 TAGGTAGTGAACCTAAAAAAAAAAAAAA

>gi|13097681|gb|AAH03551.1|AAH03551 Similar to transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) [Homo sapiens] (SEQ ID NO:15)

MAEELVLERCDLELETNRDHTADLCREKLVRRQPFWLTLHFEGRNYEASVDSLTSVVTGPAPSQE  
 AGTKARFPLRDAVEEGDWTATVVDQDCTLSQLTTPANAPIGLYRLSLEASTGYQGSSFVLGHFILLFN  
 AWCPADAVYLDSEERQEYVLTQQGFIYQGSAKFIKNIPWNFGQFEDGILDICLILLDVNPKFLKNAGRD  
 CSRRSSPVYVGRVSGMVNCNDQGVLLGRWDNNYGDGVSPMSWIGSVIDLRRWKNHGCQRVKYQCWVF  
 AAVACTVLRCLGIPTRVVTNYNSADQNSNLLIEYFRNEFGEIQGDKSEMIWFHCVVESWMTRPDQPG  
 YEGWQALDPTPQEKGESTYCCGPVPVRAIKEGDLSTKYDAPFVFAEVNADVDWIQQDDGSVHKSINRSL  
 IVGLKISTKSVGRDEREDITHTYKYPEGSSEEREAFTRANHLNKLAEKEETGMAMRIRVGQSMNMGSDFD  
 VFAHITNNTAEEYVCRLLLCARTVSYNGILGPECGTKYLLNLNLEPFGKALCSWSIC

>gi|339577|gb|M98478.1|HUMTGH1A Human transglutaminase mRNA, complete cds (SEQ ID NO:16)

CAGGCGTACGCCAGTCTAAATCTGAAACAGAACAAACTCAAAGTACACCAAAATAGAACCTCCTT  
 AAAGCATAAATCTCACGGAGGTCTGCCGCCAGTGGAAAGGAGCCACGCCCGCCGACATGCCGA  
 GGAGCTGGCTTCTAGAGAGGTGTGATCTGGAGCTGGAGACCAATGCCGAGACCACACGCCGACCTG  
 TGCCGGAGAGCTGGTGGTGCACGGGCCAGCCCTCTGGCTACCCCTGACTTGAAGGCCGCAACT  
 ACGAGGCCAGTGTAGACAGTCTCACCTCAGTGTGACCGGCCAGCCCTAGCCAGGAGGCCGGAC  
 CAAGGCCGTTTCCACTAAAGAGATGCTGGAGGAGGGTGAAGTGGACAGCCACCGTGGTGGACCAGCAA  
 GACTGCACCCCTCGCTGAGCTCACCACCCGGCCAACGCCCCATCGGCCTGTATGCCCTCAGCCTGG  
 AGGCCTCACTGGCTACCAAGGGATCCAGCTTGTGCTGGGCCACCTCATTTGCTCTCAACGCCCTGGT  
 CCCAGCGATGCTGTACCTGGACTCGGAAGAGGAGGGCAGGAGTATGTCCTCACCCAGCAGGGCTT  
 ATCTACCAGGGCTCGGCCAAGTTCATCAAGAACATACCTTGGAAATTGGCAGTTGAAGATGGATCC  
 TAGACATCTGCTGATCCTCTAGATGTCAACCCCAAGTTCTGAAGAACGCCGGCGTGAETGCTCCCG  
 CCCAGCAGCCCCGTCACGTGGCCGGGTGTGGAGTGGCATGGTAACGCAACGATGACCAGGGTGTG  
 CTGCTGGGACGCTGGACAACAACACGGGACGGCTCAGCCCATGTCAGTGGCAGCGTGGACA  
 TCCCTGCCGCGCTGGAAAGAACACCGGCTGCCAGCGCTCAAGTATGCCAGTGTGGCTTCGCCCGT  
 GCCCTGCACAGTGTGAGGTGCCATCCCTACCCGCGTGTGACCAACTACAACCTGCCCATGAC  
 CAGAACAGCAACCTCTCATCGACTTCCGCAATGAGTTGGGAGATCCAGGGTGAACAGAGCGAGA  
 TGATCTGGAACCTCCACTGCTGGTGGAGTCGTGGATGACCAGGCCGAGCTGCAGCCGGTACGGAGGG  
 CTGGCAGGCCCTGGACCAACGCCCAAGGAGAACAGCGAAGGGACGTACTGCTGTGGCCAGTTCCAGTT  
 CGTGCCTCAAGGAGGGCAGCTGAGCACCAAGTACGATGCGCCCTTGTCTTGCAGGGTCAATGCCG  
 ACCTGGTAGACTGGATCCAGCAGGACGATGGTCTGTGACAAATCCATCAACCGTCCCTGATCGTTGG  
 GCTGAAGATCAGCACTAAAGAGCGTGGCCGAGACGAGCGGAGGATATCACCCACACCTACAAATACCA  
 GAGGGTCTCAGAGGAGAGGAGGCCACAAAGGGGAACCAACTGAACAAACTGCCGAGAAGGAGG

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AGACAGGGATGCCATCGGATCCGTGTGGCCAGAGCATGAACATGGCAGTGACTTGACGTCTTGC
CCACATCACCAACAACACCGCTGAGGAGTACGTCTGCCCTCCTGCTCTGCCGCACCGTCAGCTAC
AATGGGATCTGGGCCAGTGTGGCACCAAGTACCTGCTAACCTAACCTGGAGCCTTCTGGTA
AAGCCCTGTGTTCTGGAGCATTGTTGACCGCAACTGACAACATGCTAGGTAGTGACCTAACCACTTA
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TATAAATATCAACCCACTTA
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>gi|339578|gb|AAA36739.1| transglutaminase (SEQ ID NO:17)
MAEELVLERCDLELETNGRDHTADLCREKLVVRGQFWLTLHFEGRNYEASVDSLTFSVVTGPAPSQE
AGTKARFPLRDAVEEGDWTATVVDQQDCTLQLTTPANAPIGLYRLSLEASTGYQGSSFVLGHFILLFN
AWCPADAVYLDSEEERQEYVLTQQGFIYQGSAKFIKNIWNFGQFEDGILDICLILDVNPKFLKNAGRD
CSRSPVYVGRVWSGMVNCNDQGVLLGRWDNNYGDGVSPMSWIGSVDILRRWKNHGCQRVKYGQCWVF
AAVACTVLRLCGIPTRVVTNNSAHDQNSNLIEYFRNEFGEIQGDKSEMIWNFHCVVESWMTRPDQPG
YEGWQALDPTPQEKESEGTYCCGPVVRAlKEGLDLSTKYDAPFVFAEVNADVVDWIQQDDGSVHKSIINSL
IVGLKISTKSVGRDEREDITHTYKYPEGSSEEREAFTRANHNLKLAKEETGMAMRIRVGQSMNMGSDFD
VFAHITNNTAEEYCRLLLCAUTVSYNGILGPECGTKYLLNLNLEPFSKALCSWSIC
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Cytosine deaminase

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GH1-27-PCR-G3F1 (SEQ ID NO:18)
CCAGCGGTGGCTCCAGTGTCTGGCTCGGGACGTGTGCCATGCCAGCTGAATGCCATCATGAACAAAAATTGAC
CGATGTGAAAGGCTGTAGTATGTATGTTGCCCTGTTAATGAATGCGCTAACGCTCATCCAGGCAGGTA
TAAAAGAAGTGAATTTCTTGTGTTGATAAAATACCATGATAGTGACGAGGCAACTGCTGGAGGCTCTGTTAATAT
GGCGGGGTGACATTCCGAAATTCAACCGAAGTGCAGCAAGATTGTCATTGACTTGAATTCAATTAACAGCAGAC
CGAGTCAAAAGCTTCAGTGAGTTACATCTCATTCAATCTCCAGAAGATTGGGATTATCGTCTCTAAGAGGTTGCTA
ATGCCCTTCATCTTGAGTTACACATAACTTCTACTAGCCAGTATGCCAAAAGTAGGCATCTTAAGAATATAAGC
CTCCAATCTCCTTACTGTCTCTTGTCACATGGAATCTACATGTGTTGAACTATTGCTTTAGGGATTAAAATA
GGGGAGCCTGGTGGCCTGGTCACAGGGGCTAGAACGAGAGTGCCTCCCTCTGTGTCCTGGCTGGCTGGGAT
GCTGTGGCTCTCAGAGGAGCATCAGCCTGTCATCTGCTGCGATCCGGCAG
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>gi|23503055|sp|P32321|DCTD_HUMAN Deoxycytidylate deaminase (dCMP deaminase)
(SEQ ID NO:19)
MSEVSKKRRDDYLEWPEYFMAVAFLSAQRSKDPNSQVGACIVNSENKIVGIGYNGMPNGCSDDVLPWRRT
AENKLDTKYPVCHAEINAIMNKNSTDVKGCSMYVALFPCNECAKLIQAGIKEVIFMSDKYHDSDEATA
ARLLFNMAGVTFRKFIPKCSKIVIDFDSINSRPSQKLQ
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>gi|4503276|ref|NM_001921.1| Homo sapiens dCMP deaminase (DCTD), mRNA (SEQ ID
NO:20)
ATGAGTGAAGTTCTGCAAGAAACGGGACACTATTGGAATGCCAGAGTATTTATGGCTGTGGCCT
TCTTATCAGCACAGAGAAAGCAAAGATCCAAATTCCCAGGTGCGCCCTGCATCGTAATTCAAGAAAACAA
GATTGTCGGATTGGTACAATGGGATGCCAAATGGGTGAGTGTGACGTGTTGCCCTGGAGAAGGACA
GCAGAGAATAAGCTGGACACCAAATACCGTACGTGTCCATGCCAGCTGAATGCCATCATGAACAAAA
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CATCCAGGCAGGTATAAAAGAAGTGAATTTACGTCTGATAAAATACCATGATAGTGACGAGGCAACTGCT
GCGAGGCTCTGTTAATATGCCGGGGTGACATTCCGAAATTACCGAAGTGCAGCAAGATTGTCA
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TAGCCAGTATGCCAAAGTAGGCATCTAAAGAATATAAGCCTCAAATCTCCTTACTGTCTCTTGTG
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CACAGGGCTAGAACGAGAGTGCCTCCCTCTGTGTCCTGGCTGGATGCTGGTGGCTTCAGA
GGAGCATCAGCTGTGTCATCTGCTGCGATCCGGCAGCCTCTTCACTGCTACATGTGCTGGAAGGAC
AAATAAATAATTGTGGTTGTTCTTAATGGGACGAGCAGACACACTGATCTGAACATCTGCCCAAGT
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GAAGCATGGCATATAGGCCCTTGAAGAAAATTAGCCCTAAATGACAGTAGCATTGAAGTGTTGCTG  
 CAGAGTTGAGGGAAACCCCCAGCCACCCCTCCCGAATCCGAGATAGGGTGGCACATCTGTCTGACAGAC  
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 TTATCCCTCTGGGGGGTGGGACCCCTGTTGTTGGCTCAATTGGGTTTGGTACATGGAGCTCT  
 TCCATTCTGTTAGCTGAATAATGAGTTGTTCTAGAGGAGACAGCCTGTCCTCCTGTTGCCAAA  
 GCCCATGCCCTGCCGTGGCAGCTGGGGCTGTTGAGGGGCTCCAAACATGGATGTGTTGCC  
 TCCTCCGCATGCCAACCGCAGTTCATGTACAAGGCCCTGCAACTGGAGAGAAAATTAACTCTATCCC  
 GTGAGTGGATTGTGAGAAAATTCCACCCACGTGGAGACAGCTACTGCAGCACTGTTGGTGTGAGCTC  
 TTCTGTGCCCTGGCTCCATGCTTCACCTACACAAGCATCACCTCCTAATACCAGGGGGGGAGCG  
 TGTTGCTGTGCCCTCTTTAATCTCATTTAATTAAACATGCTCAGTACCTGTGTTGAGAAA  
 AGGCTTTCTTATCTAAAGATTATTACCTTTAAAGTGTCTTATTTCATGAGTTTATTGT  
 CTCTGAGATTGTATTCCACATTCTAGGGTATTCTGTAATTGGCTCCTAACCAATTAAATCT  
 TATTAATCT

>gi|4503277|ref|NP\_001912.1| dCMP deaminase [Homo sapiens] (SEQ ID NO:21)  
 MSEVSKRDDRLEWPEYFMAVAFLSAQRSKDPNSQVGACIVNSENKIVGIGYNGMPNGCSDDVLPWRRT  
 AENKLDTKYPVCHAEINAMKNSTDVKGCSMYVALFPCNECAKLIQAGIKEVIFTSKYHDSDEATA  
 ARLLFNMAGVTFRKFIPKCSKIVIDFDSINSRPSQKLQ

Peptidase M41 (Paraplegin)

GH1-40-PCR-G3F1 (SEQ ID NO:22)  
 GTGGAAATGCCCTGTTACTCTGTGGGATGACGGCAGTGGGCCTGGCATCCTGTGGTATGTTCCGTCTGCCGG  
 GATGACTGGAAGGGAAAGGTGGATTCACTGCTTTAATCAGCTAAAATGGCTCGTTCACCATGTGGATTGAAAGA  
 TGAGGAAAGGGAGTCAGCTCAAAGACGTGGCAGGAATGCACGAAGCCAAACTGGAAAGTCCGAGTTGTGATT  
 TCTGAAGAGGCCAGAACGCTCCCTCAGCTGGCGCCAGGTCCAAAGGGCGCACTGCTGCTCGGCCCCCGGCTG  
 TGGAAGACGCTCTGCCAAGGGCGTGGCACGGAGGCTCAGGTGCCCTCTGGCGATGCCGGCCAGAGTCGT  
 GGAGGTCTGGAGGCCCTGGCGCTCCGTGCGGAGCCTTTAAGGAAGCCCAGAGCCGGCCCTGCATCGT  
 CTACATCGATAGATCGACGGTGGCAAGAACGCTCCACCACCATGTCGGCTCTCCAACACNGAGGAGGAGCA  
 GACGCTAACCAAGCTCTGGTNAAGAAATGGATGAAATGGGTACACAGACCATGTCATGTCCTGGCGTCCACGAA  
 ACCGAGCTGACATTGGACGGTCTTATAGGCCAGGCCAACGGGACGTCTTTGATCT

>gi|4507172|ref|NM\_003119.1| Homo sapiens spastic paraplegia 7, paraplegin  
 (pure and complicated autosomal recessive) (SPG7), mRNA (SEQ ID NO:23)  
 TTTCAGGCCAACATGGCGTGTGCTGCTGCTCCGTGCCCTCCGCCGGGTCAGGCCCGGGCTC  
 GCCGCTGTGGGCCAGGCCGCTGGAGTCCAGGGTTCCCGCAGGCCGGAGGGGGCGCCGTA  
 CATGGCCAGGCCCTCCGGGGACCTCGCCGAGGCTGGAGGCCAGCTGCAAGAGCTTACAATTGAGA  
 CTGCTAACCCCTACCTTGAAAGGATCAACGGATTGTTGAAACAACATTAGTTGAGAACATCCAGTCA  
 GACTCTGGCAACTTTAGGTGGTACTTTCTATTAAACACCTCAAGGTTGAAAGCAGAAAGAATAAGGAGAA  
 GGATAAGTCAAAGGGAAAGGCCTGAAGAGGACGAAGAGGAGAGGAGACGCCGTGAGCGGGACGACAG  
 ATGTACCGAGAGCGGCTGCGCACCTGCTGTCATCGCGTTGTCATGAGCTCTGAATGCTCTCAGCA  
 CCAGCGGAGGCAGATTCTGGAACGACTTGTCACGAGATGCTGCCAAGGGAGGTGCAGCGCT  
 CCAGGTGGTGCCTGAGAGCGACGTGGGAAGTCTACCTGCACCCCTGGAGCCGTGGTGTGTTGGCC  
 CGGCTAGCCTTGATGTACCGAATGCAGGTTGCAAATATTGACAAGTTGAAGAGAAGCTCGAGCAGCTG  
 AAGATGAGCTGAATATCGAGGCCAAGGACAGGATCCCAGTTCCATACAAGCGAACAGGATTCTTGAAA  
 TGCCCTGTAAGTGTGGGATGACGGCAGTGGCCTGCCATCCTGTGGTATGTTCCGTCTGCCGG  
 ATGACTGGAAGGGAAAGGTGGATTCACTGCTTTAATCAGCTAAAATGGCTCGTTCACCATGTGGATG  
 GGAAGATGGGAAAGGAGTCAGCTCAAAGACGTGGCAGGAATGCACGAAGCCAAACTGGAAAGTCCGCGA  
 GTTGTTGAGTATCTGAAGAGGCCAGAACGCTTCCAGCTTGGCGCCAAGGTCCAAAGGGCGCACTG  
 CTGCTCGGCCCGGCGTGTGGGAAGACGCTGCTGCCAAGGGCGTGGCACGGAGGCTCAGGTGCC  
 TCCCTGGCGATGGCCGGCCAGAGTTGTCAGTGGAGGTCTGGAGGCTCGGCGTGTGCGGAGCCT  
 CTTAAGGAAGGCCAGGCCGGCCCTGCATCGTACATCGATGAGATCGACGCGGTGGCAAGAAG

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CGCTCCACCACCATGTCCGGCTCTCCAACACGGAGGAGGAGCAGACGCTCAACCAGCTTCTGGTAGAAA  
TGGATGGAATGGGTACCAAGACCATGTCATCGTCTGGCGTCCACGAACCGAGCTGACATTGGACGG  
TGCTCTGATGAGGCCAGGCCACTGGACCGGCACGTCTTATTGATCTCCCCACGCTGCAGGAGAGGCC  
GAGATTGGAGCAGCACCTGAAGAGCCTGAAGCTGACCCAGTCCAGCACCTTACTCCAGCGTCTGG  
CAGAGCTGACACCAGGATTCACTGGGGCTGACATGCCAACATCTGCAATGAGGCTGCGCTGCACGCC  
GCGGGAGGGACACACTCCGTGACACTCTCAACTTCGAGTACGCCGGAGCGCGTCCTCGCAGGGACT  
GCCAAAAAGAGCAAGATCTGTCCAAGGAAGAACAGAAAGTGGTGCCTTATGAGTCGGGCCACGCC  
TGGTGGCTGGATGCTGGAGCACACGGAGGCCGTGATGAAGGTCTCCATAACCCCTCGGACAAACGCC  
CCTGGCTTGCTCAGATGCTCCCCAGAGACCAGCACCTCTCACCAAGGAGCAGCTGTTGAGCGGATG  
TGCATGGCCTGGGAGGACGGCCTCGAAGCAGTGCCTTCAACGAGGTCACTTCTGGGCACAGGACG  
ACCTGAGGAAGGTACCCGCATGCCACTCCATGGTGAAGCAGTTGGATGGCACCTGGCATCGGGCC  
CATCTCCTCCCTGAGGCGCAGGGGGCTCATGGGCATGGGCGCCCTCAGCCAAGGCTGCAAG  
CAGATGATGGACCATGAAGCAAGACTGCTGGTGGCAAGGCCTACAGACACACCAGAGAAGGTGCTGCAGG  
ACAACCTGGACAAGTGCAGGCCTGGAAACGCCCTCTGGAAAAGGAAGTGATAAAACTATGAGGACAT  
TGAGGCTCTCATTGGCCCGCCGCCCATGGGCCAGAGAAAATGATCGCACCGCAGAGGTGGATCGACGCC  
CAGAGGGAGAACACAGGACTTGGCGAGGGAGGAGACCGAAGAGACCCAGCAGCCTCCACTGGAGGCGAAG  
AGCCGACTTGGCCAAGTAGTTGGAGGTGTTGCTGCACGTGCGGGTGGTCCGGGAAGTGAGGGCTCAC  
TCAGCCACCCCTGAGTTGCTTTCACTGAGGTTGCACTTCTCGCCGCCCTCAGTAGTCCCTGCACA  
GTGACTCTGAGATCTGTTGATTGATGACCCCTTTCATGATTAAAGTTCTCTGCAGAAACTACTGACG  
GAGTCCTGTGTTGAGTCGTTCCCTATGGGAAGGTATCAGTGCCTCCAGTGAGCATGGAACA  
CTTCGAGTTCCAGGGTTATAGACAGTCGTTCCAGTGTGGCTGAGGCCACCCAGAGGAGCAGAGCATT  
CAGACTCCAAACAGACCCCTGTTCATGCCGACGCTGCACGACGCCAGTTCTGTGGCTCCCTCGGA  
ATGCTAAGGGATCGGACATGAAAGGACCCCTGTGAGCCGATGTCCTATCTCCAGCGCCCTGTCATCCA  
GCTCACTCATCAATGGGGCCAGTCAGGCCAGGCAGTGGCTCCGGAGGACTCACCACGTGCCCTGCTG  
CCATGTGGACTGGTGCAGTTGAGGACTTGTGCTGGTCTAGTCACGCATGCAGTGTGGGATGCC  
GTTTTACTGCTCTGAGAATTGTTGAGATACTTACTAATAACTGTGAGTTGGAAAAAAA  
AAAAAAA

>gi|4507173|ref|NP\_003110.1| paraplegin [Homo sapiens] (SEQ ID NO:24)  
MAVLLLLLRLRRGPGPGPRPLWGPGPAWSPGFPARPGRGRPYMASRPPGDLAEAGGRALQLQLRLLTP  
TFEGINGLLLQKHLVQNPVRLWQLGGTFYFNTSLRKQKNKEDKSKGKAPEEDEERRRERDDQMRYRE  
RLRTLLVIAVMSLLNALSTSGGSISWNDFVHEMLAKGEVQRVQVVPESDVVVEVYLHPGAVVFGRPRLAL  
MYRMQVANIDKFEEKLRAAEDELNIEAKDRIPVSYKRTGFFGNALYSVGMTAVGLAILWYVFRLAGMTGR  
EGGFSAFNQLKMARFTIVDGKMGKGVSKDVAGMHEAKLEVREFVDYLKSPERFLQLGAKVPKGALLGP  
PGCGKTLAKAVATEAQVPFLAMAGPEFVEVIGGLGAARVRSLFKEARARAPCIVYIDEIDAVGKKRSTT  
MSGFSNTEEEQTLNQLLVEMDGMGTTDHVIVLASTNRADILDGALMRPGRLDRHVFIDLPTLQERREIFE  
QHLKSLKLTQSSTFYSQRALAEITPGFSGADIANICNEAALHAAREGHTSVHTLNFEYAYERVLAGTAKKS  
KILSKEEQKVVAFHESGHALVGWMLEHTEAVMKVISITPRTNAALGFAQMLPRDQHLLFTKEQLFERMCMAL  
GGRASEALSFNEVTSGAQDDLRKVTRIAYSMVKQFGMAPGIGPISFPEAQEGLMGIGRRPFSQGLQQMMD  
HEARLLVAKAYRHTEKVLQDNLDKLQALANALLEKEVINYEDIEALIGPPP HGPKKMIAPQRWIDAQREK  
QDLGEEETEETQQPPLGGEETWPK

### CD13 Aminopeptidase

GH1-72-PCR-G3F1 (SEQ ID NO:25)

AGGCCAGGCCTAGGGGGGGTGGCATGAGCAGCAGCGCTGGGAGGTGCTCAGGCAGCCTGGGTATCAGGAAC  
TAGACTGGCTCACAGGCAGAGAAGAACGAGACTTGTGAGACTTGTGAGGGGAGGACACTGGTGCCTCGGGCTCC  
AGGAATGGAGGCCCTGCACCAGCCGCTGGGATGGACACATGTGGCACCTGCATGGGGCCGGGTGACTTCAAGGG  
CTGGGGACTATTTGCTGTTCTGTGAACCACTGGAGCACCACTCCTGTTCTCCTTACCCACTTATGTTGCTT  
CGTCTTCTCCAGGGGCTGCTCCAGGGCCGGTGCCTAGCCGAAGCCTGTTCTCGTTCCCT

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>gi|113743|sp|P15144|AMPN\_HUMAN Aminopeptidase N (Microsomal aminopeptidase) (GP150) (Myeloid plasma membrane glycoprotein CD13) (SEQ ID NO:26)  
MAKGFYISKSLGILGILLGVAAVCTIIALSVVYSQEKENKNANSSPVASTTPSASATTNPASATTLDQSKA  
WNRYRLPNTLKPDSYQVTLRPYLTPNDRGLYVFKGSSTVRFTKEATDVIILHSKKNYTLSQGHRVVL  
GVGGSQPPDIDKTELVEPTEYLVVLKGSLVKDSQYEMDSEFEGERLADDLAGFYRSEYMEGNVRKVVATT  
QMQAADARKSFPDFEPMKAEPNITLILHPKDLTALSNMLPKGPSTPLPEDPNWNVTEHTTPKMSTYLL  
AFIVSEFDYVEKQASNGVLIRIWARPSAIAAGHGDYALNVTPILNFFAGHYDTPYPLPKSDQIGLPDFN  
AGAMENWGLVTYRENSLLFDPLSSSSNKERVVTVIAHELAHQWFGNLVTIEWWNDLWLNEGFASTYVEYL  
GADYAEPTWNLKDLMLVNDVYRVMADVADLASSHPLSTPASEINTPAQISELFDASIYSKGASVRLMLSSF  
LSEDVFQGLASYLHTFAYQNTIYLNLDHQLQEAVNNRSIQLPTTERDIMNRWTLQMGFPVITVDTSTGT  
LSQEHFLDDPSNVTRPSEFNYWIVPITSIRDGRQQDYWLMDVRAQNDLFSTSGNEVLLNLNTGYY  
RVNYDEENWRKIQTQLQRDHSAPIVINRAQIINDAFNLASAHKVPTLALNNTLFLIERQYMPWEAALS  
SLSYFKLMFDRSEVYGPMKNYLKQVTPLFIHFRNNNTNWREIPENLMDQYSEVNAISTACSGNGVPECEE  
MVSGLFKQWMENPNNNPIHPNLRSTVYCNIAQGGEEDWDFAWEQFRNATLVNEADKLAALACSKELWI  
LNRYLSYTLPNPDILRKQDATSTIISITNNVIGQGLVWDFVQSNWKKFNDYGGGSFSFSNLIQAVTRRFS  
TEYELQQLEQFKKDNEETFGSGTRALEQALEKTKANIKWVKENKEVVLQWFTENSK

>gi|4502094|ref|NM\_001150.1| Homo sapiens alanyl (membrane) aminopeptidase (aminopeptidase N, aminopeptidase M, microsomal aminopeptidase, CD13, p150) (ANPEP), mRNA (SEQ ID NO:27)  
TAATTTTGGCCAGTCGCTTGTGGGGCTCCTCCCTTGGGGATATAAGCCGGCTGGGGCTGCT  
CCGTTCTCTGCCTGGCCTGAGGCTCCCTGAGCCGCCTCCCACCATCACCATGGCCAAGGGCTTCTATAT  
TTCCAAGTCCCTGGGCATCCTGGGATCCTCTGGCGTGGCAGCCGTGTGCACAATCATCGCACTGTCA  
GTGGTGTACTCCCAGGAGAAGAACAGCCAACAGCTCCCCGTGGCTCCACCACCCCGTCCGCT  
CAGCCACCACCAACCCGCCCTGCCACCACCTGGACCAAAGTAAAGCGTGGATCGTACCGCTCC  
CAACACGCTGAAACCCGATTCTACCGAGTGACGCTGAGACCGTACCTCACCCCAATGACAGGGCCTG  
TACGTTTTAAGGGCTCCAGCACCGTCCGTTCACCTGCAAGGAGGCCACTGACGTATCATCCACA  
GCAAGAAGCTCAACTACACCCCTCAGCCAGGGCACAGGGTGGCTCTGCCTGGCTGGAGGCTCCAGCC  
CCCCGACATTGACAAGACTGAGCTGGTGAGCCCACCGAGTACCTGGTGGTCACCTCAAGGGCTCCCTG  
GTGAAGGACAGCAGTATGAGATGGACAGCGAGTTGAGGGGAGTTGGCAGATGACCTGGCGGGCTCT  
ACCGCAGCGAGTACATGGAGGGCAATGTCAGAAAGGTGGCCACTACACAGATGCAAGGCTGAGATGC  
CCGGAAAGTCTTCCCAGTCTCGATGAGCCGCCATGAAGGCCAGTTCAACATCACGTTATCCACCC  
AAGGACCTGACAGCCCTGTCACATGCTTCCAAAGGTCCACGACCCCCACTCCAGAACACCCA  
GGAATGTCACTGAGTCCACACCACGCCAAGATGTCACGTTGCTGGCTTCATTGTCAGTGAGTT  
CGACTACGTGGAGAACAGGCATCCAATGGTGTCTGATCCGGATCTGGGCCGGCCAGTGCCATTGCG  
GGGGGCCACGGCGATTATGCCCTGAACGTGACGGGCCCCATCCTTAACCTCTTGCTGGTCAATTGACA  
CACCCCTACCCACTCCCCAAATCAGACCAAGATTGGCCTGCCAGACTTCAACGCCGGCGCCATGGAGAAC  
GGGACTGGTACCTACCGGGAGAACCTCCCTGCTGTTGAGCCCCCTGCTCTCCAGCAGCAACAAGGAG  
CGGGTGGTACTGTGATTGCTCATGAGCTGCCACCGAGTGGTCCGGAACTGGTGGACCATAGAGTGGT  
GGAATGACCTGTGGCTAACGAGGGCTTCGCCCTCACGTGGAGTACCTGGTGGTCACTATGCGGAGCC  
CACCTGGAACTTGAAAGACCTCATGGTGCTGAATGATGTGACCGCTGATGGCAGTGGATGCACGG  
TCCTCCCACCGCTGTCACACCCGCCCTGGAGATCAACACGCCGGCCAGATCAGTGAGCTGTTGACG  
CCATCTCCTACAGCAAGGGGCCCTCAGTCCTCAGGATGCTCTCCAGCTCCAGTGGAGGACGTATTCAA  
GCAGGGCCCTGGCGTCCCTACCTCCACACCTTGCCCTACAGAACACCATCTACCTGAACCTGTGGGACCAC  
CTGCAGGAGGCTGTGAACAACCAGTCCATCCAACCTCCCCACCAACCGTGCAGGGACATCATGAACCGCTGGA  
CCCTGCAGATGGGCTTCCCGGTACGGTGGATACCAGCACGGGGACCCCTTCCAGGAGCACCTCCT  
CCTTGACCCGATTCCAATGTTACCCGCCCTCAGAATTCAACTACGTGTGGATTGTGCCCATCACATCC  
ATCAGAGATGGCAGACAGCAGCAGGACTACTGGCTGATAGATGTAAGAGGCCAGAACGATCTCTTCAGCA  
CATCAGGCAATGAGTGGTCTGTCACCTCAATGTCAGGGCTATTACCGGGTGAACATACGAGGAAGA  
GAACGGAGGAAGATTCAAGACTCAGCTGCAGAGAGACCACTCGGCCATCCCTGTCATCAATCGGGCACAG  
ATCATTAATGACGCCTCAACCTGGCCAGTGGCCATAAGGTCCCTGTCACTCTGGCGCTGAACAAACACCC  
TCTTCCCTGATTGAAGAGAGACAGTACATGCCCTGGGAGGCCCTGAGCAGCCTGAGCTACTTCAAGCT

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CATGTTGACCGCTCCGAGGTCTATGGCCCCATGAAGAACTACCTGAAGAAGCAGGTACACACCCCTCTTC  
 ATTCACTTCAGAATAATACCAACAACGGAGATCCCAGAAAACCTGATGGACCAGTACAGCGAGG  
 TTAATGCCATCAGCACCGCCTGCTCCAACGGAGTTCCAGAGTGTGAGGAGATGGTCTCTGGCCTTTCAA  
 GCAGTGGATGGAGAACCCATAATAACCCGATCCACCCACCTGCGGTCCACCGTCTACTGCAACGCT  
 ATCGCCCAGGGCGGGAGGAGGTGGACTTCGCTGGGAGCAGTCCGAAATGCCACACTGGTCAATG  
 AGGCTGACAAGCTCAGGGCAGCCCTGGCCTGCAGCAAAGAGTTGAGCTCTGAACAGGTACCTGAGCTA  
 CACCCCTGAACCCGGACTTAATCCGAAGCAGGACGCCACCTTACCATCATCAGCATTACCAACAACGTC  
 ATTGGGCAAGGTCTGGTCTGGGACTTGTCCAGAGCAACTGGAAGAAGCTTTAACGATTATGGTGGTG  
 GCTCGTTCTCCTCTCCAACCTCATCCAGGAGTGCACAGCAGATTCTCCACCGAGTATGAGCTGAGCA  
 GCTGGAGCAGTCAAGAAGGACAACAGGAAACAGGCTCGGCTAGGCACCCGGGCTGGAGCAAGCC  
 CTGGAGAAGACGAAAGCCAACATCAAGTGGTGAAGGAGAACAGGAGGTGGTCTCCAGTGGTACAG  
 AAAACAGCAAATAGTCCCCAGCCCTGAAGTCACCCGGCCCGATGCAAGGTGCCACATGTGTCATCC  
 CAGCGGCTGGTGCAGGGCCTCCATTCTGGAGCCGAGGCACCAGTGTCTCCCTCAAGGACAAAGTCT  
 CCAGCCCACGTTCTCTGCCTGTGAGCCAGTCTAGTCCCTGATGACCCAGGCTGCCTGAGCACCTCCA  
 GCCCTGCCCTCATGCCAACCCGCCCTAGGCCTGGCATGGCACCTGTCGCCAGTGCCCTGGGCTGA  
 TCTCAGGGAGGCCAGCTCCAGGGCCAGATGAGCAGAAGCTCTCGATGGACAATGAACGGCCTGCTGG  
 GGCGCCCTGTACCCCTTTCACCTTCCAAAGACCTAAATCTGAGGAATCAACAGGGCAGCAGATC  
 TGTATATTTTTCTAAGAGAAAATGAAATAAAGGATTCTAGATGAAAAA

>gi|4502095|ref|NP\_001141.1| membrane alanine aminopeptidase precursor;  
 microsomal aminopeptidase; Alanyl (membrane) aminopeptidase (aminopeptidase  
 N, aminopeptidase M, [Homo sapiens] SEQ ID NO:28)  
 MAKGFYISKSLGILGILLGVAAVCTIIALSVVYSQEKNKNANSSPVASTTPSASATTNPASATTLDQSKA  
 WNRYRLPNTLKPDSYQVTLRPyLTPNDRGLYVFQGSSTVRFTCKEATDVIILHSKKNYTLSQGHRRVLR  
 GVGGSQPPDIDKTELVEPTEYLVVLKGSLVKDSQYEMDSEFEGELADDLAGFYRSEYMEGNVRKVVATT  
 QMQAADARKSFPCFDEPAMKAEFNITLILHPKDLTALSNMLPKGPSTPLPEDPNWNVTEFHTTPKMSTYLL  
 AFIVSEFDYVEKQASNGVLIRIWARPSAIAAGHGDYALNVTPILNFFAGHYDTPYPLPKSDQIGLPDFN  
 AGAMENWGLVTYRENSLLFDPLSSSSSNKERVVTVIAHELAHQWFGNLVTIEWWNDLWLNEGFASTYVEYL  
 GADYAEPTWNLKDLMVLNDVYRVMAVDALASSHPLSTPASEINTPAQISELFDAISYSKGASVLRMLSSF  
 LSEDVFKQGLASYLHTFAYQNTIYLNLWDHLQEAVNNRSIQLPTVRDIMNRWTLQMGFPVITVDTSTGT  
 LSQEHFLLDPDSNVTRPSEFNYWIVPITSIRDGRQQDYWLIDVRAQNDLFSTSGNEWVLLNLNVGTYY  
 RVNYDEENWRKIQTQLQRDHSAPIVINRAQIINDAFNLASAHKVPVTLALNNTLFLIEERQYMPWEAALS  
 SLSYFKLMFDRSEVYGPKNYLKKQVTPLFIFHRNNNNWREIOPENLMDQYSEVNAISTACSGNGVPECEE  
 MVSGLFKQWMENPNNNPIHPNLRSTVYCNIAQGGEIEWFAWEQFRNATLVNEADKLAALACSKELWI  
 LNRYSYTLNPDLIRKQDATSTIISITNNVIGQGLWDFVQSNWKKLFNDYGGGSFSFSNLIQAVTRRFS  
 TEYELQQLEQFKKDNEETGFGSGTRALEQALEKTKANIKWVKENKEVVLQWFTENSK

PRK-1

GH1-54-PCR-G3F1 (SEQ ID NO:29)

TCTTTCCGCCACGCACTACAGCACCCCTTGCAGGCCGCGCTCACAGGGACCTGAGGTACGAGTGGTGGG  
 CTGCAGAGACCTCCAGAGACCATCCCGTGAACCCCTACCCCTCAATGGGGGACCTGGACCCAGACAGCGCCC  
 CCCTCCCTGAGCGCCCAAGCCCCGGGCGCAGTAACCCAGCACAGTGGTAGATAGATAAAGCGCCGCTCGACTAG  
 TCTGAGGTCTGATACTCACTGACGTGATACGT

>gi|4506072|ref|NM\_002741.1| Homo sapiens protein kinase C-like 1 (PRKCL1), mRNA (SEQ ID NO:30)

TGAGTAAATCGATACATCATCGCGCTCCTCTGGCCGCCCTCCCTCCGACGATGGGGACCCCTGGCG  
 GCGGGCAGGAGGACATGGCCAGCGACGCCGTGCAGAGTGAGCCTCGCAGCTGGTCCCTGCTAGAGCAGCT  
 GGGCCTGGCCGGGGCAGACCTGGCGCCCCGGGTACAGCAGCAGCTGGAGCTGGAGCGGGAGCGGCTG  
 CGCGGGAAATCCGCAAGGAGCTGAAGCTGAAGGAGGTGCTGAGAACCTGCGCGGGCACCACGTGACC

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TGGGCCGCAGCCTGGGCCCGTAGAGCTGCTGCTGCGGGCTCCTCGCGCCCGCTCGACCTGCTGCACCA  
 GCAGCTGCAGGAGCTGCACGCCACGTGGTCTCCGACCCGGCGGCCACCCACGATGGCCCCAGTCC  
 CCTGGTGCGGGTGGCCCCACCTGCTGGCCACCAACCTGAGCCGCGTGGCGGGCTGGAGAAGCAGTTGG  
 CCATTGAGCTGAAGGTGAAGCAGGGGGCGGAGAACATGATCCAGACCTACAGCAATGGCAGCACCAAGGA  
 CCGGAAGCTGCTGACAGCCCAGCAGATGTTGCAGGACAGTAAGACCAAGATTGACATCATCCGCATG  
 CAACTCCGCCCCGGCGCTGCAGGCCGACCAGCTGGAGAACCCAGGCAGCCCCGGATGACACCCAAGGGAGTC  
 CTGACACTGGGGCTGTGGAGCTGCGCATCGAAGAGCTGCGGCACCACCTCCGAGTGGAGCAGCGGTGGC  
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 GCCCAGGAGAAATTGACAGAACCTAACAGAACAGCTGGGGCTGTCGGAGAACAGCTGCTGCGGGCTCTGGAGCAGACTTG  
 GGGAGCTGCCCAGGCCACCCCAAGGGGGCGCTGTCGGAGAACAGCTGCTGCGGGCTCTGGAGCAGACTTG  
 CTTCAGCACCCGCCTGGCCGGCCCTTCCCGCACGCACTACAGCACCCCTGTCGAAGGCCGCGCCGCTC  
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 CCTCAATGGGGGACCTGGGACCCCAAGGGGGCGCTGTCGGAGAACAGCTGCTGCGGGCCCTGGGCTTAA  
 CAGCCGAAGCGGAAGCCTCAGTGGCCGGAGCAGCCTCAAAGCAGAACAGCCGAGAACACCAGTGAAGTCAGC  
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 GGGCCTGTGCCCCTCAAATTCTGAAGTTGGAGGATTCTGGACAATGAGAGGCATGAGGTGAGCTG  
 GACATGGAACCCCAGGGCTGCTGGTGGCTGAGGTACACCTTCCGCAACCCCTGTCATTGAGAGGATTCTC  
 GGCTCCGACGGCAGAAGAAAATTCTCAAGCAGCAAGGGAGGGCTTCCAGCGTGTAGGCAGATGAA  
 CATCGATGTCGCCACGTGGGTGCGGCTGCTCCGGAGGCATCCCCATGCCACGGGCACAGGCACCTT  
 AGCCCTGGGGCTTCTCCAGGATCCGAGGCCGGACCACGGGTGACATATCGGTGGAGAACGCTAACCTCG  
 GCACTGACTCGGACAGCTCACCTCAGAAGAGCTCGCGGATCCTCCAGCCCCTGAGCCTGAGCTC  
 CCCCATCCAGGAATCCACTGCTCCCGAGCTGCTTCGGAGACCCAGGAGACCCAGGCCGGCCCTGTGC  
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 TTGGGAAGGTGCTCCTCTCGAATTCCGGCCCAGTGGGAGCTGTTGCCCCTCAAGGCTCTGAAGAAAGG  
 GGACATTGTCGGCCCGAGACGAGGTGGAGAGCCTGATGTTGAGAACAGCGGATATTGGCGGCAGTGACAGT  
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 AGTACTCGGGCGGTGGGACCTGATGCTGCACATCCACAGCGACGTGTTCTGAGCCCCGTGCCATCTT  
 TTATTCCGCTCGTGGTGTGGCTGGCCTACAGTTCTCACGAACACAAGATCGTCTACAGGGACCTGAAG  
 TTGGACAATTGCTCCTGGACACCGAGGGCTACGTCAAGATCGCAGACTTGGCCTCTGCAAGGAGGGGA  
 TGGCTATGGGACCGGACCAGCACATTCTGGGACCCGGAGTTCTGGCCCTGAGGTGCTGACGGA  
 CACGTGTAACCGGAGCTGTTGGACTGGTGGGACTGGGTGCTGCTCACGAGATGCTGGTGGCAG  
 TCCCCATTCCCAGGGGATGATGAGGAGGGCTTCGACAGCATCGTCAACGACGAGGGTGTGCTACCCCC  
 GCTTCCTGTCGGCCGAAGCCATCGGCATCATGAGAAGGCTGCTTCGGAGGAACCCAGAGCGGAGGTGG  
 ATCTAGCGAGAGAGATCGAGAACAGATGTGAAGAACAGCCCTCTCAGGACTCTGGGCTGGGAAGCCCTG  
 TTGGCCCGGGCCTGCCACCGCCCTTGTGCCACGCTGTCCGGCGACCGACGTCAACTCGAC  
 AGGAGTTCACCGGGAGGGCCCCACACTGAGCCCACCGCGACCGCGGGCCCTCACAGCCGCGAGCA  
 GGCAGCCTCCTGGACTTCGACTCGTGGCCGGGGCTGCTAGCCCCCTCCCCCTGCCCTGCC  
 CTGCCCGAGAGCTTTAGTTAAAAGGCCCTTGGGATTGCCGGAAAAAAAAAAAAAA

>gi|4506073|ref|NP\_002732.1| protein kinase C-like 1; serine-threonine kinase  
 N [Homo sapiens] (SEQ ID NO:31)  
 MASDAVQSEPRSWSLLEQLGLAGADLAAPGVQQQLELERERLRREIRKELKLKEGAENLRRATTDLRSL  
 GPVELLRLGSSRRLDLLHQQLQELHAAVVLDPAAATHDPQSPGAGGPTCSATNLSRVAGLEKQLAIELK  
 VKQGAENMIQTYNSNGSTKDRKLLLTAAQMLQDSKTKIDIIRMQLRRALQADQLENQAAPDDTQGSPDLGA  
 VELRIEELRHHFRVEHAVAEGAKNVRLLLSAAKAPDRKAVSEAQEKLTESNQKLGLLREALERRLGEPA  
 DHPKGRLLREELAAASSAAFSTRLAGPFATHYSTLCKPAPLTGTLEVRVVGCRDLPETIPWNPTPSMGG  
 PGTPDSRPPFLSRPARGLYSRSGSLGRSSLKAEAEANTSEVSTVLKDNTVVGOTSWKPCGPNAWDQSF  
 LELERARELELAFLWFRDQRGLCALKFLKLEDFLDNERHEVQLDMEPQGCLVAEVTFRNPVIERIPRLRRQ  
 KKIFSKQQGKAFQRARQMNDVATWVRLRLIPNATGTGTFSPGASPGSEARTTGDISVEKLNLGTDSD  
 SSPQKSSRDPSSPSSLSSPIQESTAPELPSETQETPGPALSPLRKSPLEDFKFLAVLGRGHFGKVL  
 LSEFRPSGELFAIKALKGDIVARDEVESLMCEKRILAATSAHPFLVNLFGCFQTPEHVCFVMEYSAG

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GDLMLHIHSDFSEPRAIFYSACVVLGLQFLHEHKIVYRDLKLDNLLLDTEGYVKIADFGLCHEGMGYGD  
 RTSTFCGTPEFLAPEVLTDTSYTRAVDWWGLVLLYEMLVGESPPFGDDEEVFDISIVNDEVRYPRFLSA  
 EAIGIMRLLRRNPERRLGSSERDAEDVKKQPFFRTLGWEALLARRLPPPFPVPLSGRTDVSNFDEEFTG  
 EAPTLSPPRDLRPLTAAEQAAFLDFDFVAGGC

Zip kinase

GH1-68-PCR-G3F1 (SEQ ID NO: 32)

GCTGGGTTTCATTCGAGTATTGGCGGGCTGCTCTCAGCTAGGTTAGCCGTCGTGACCCCTCACGTGCACTCG  
 TGGTCACTGTGGCACCGTGAGGGTTGGGACCCACCGAGGCGCAAGGCGCCGAATGCGCTGTTGAGCCGGAGAGG  
 TTTGCGGGTAGTTGCGGACATTGGCGGGTGTGCTGCTGCTTATGCCCAGGAGGAGGTGTGGGACGG  
 GGAGGGTGGGATGGACGGCGGACAGGAGTCCCACGCTGCTTGGTGGCGCCGGCTTGGTGGGGCTTCCACTGTGT  
 GCCCTTCTCGCCGAGGGCGGTCCCCCGCTGTGGGGTGCCTGCGGACTCCTCCGACCGAGAAACACGACAC  
 AGTGGTTAGAGTAGATAAAGCGGGCGAGTCGACTAGATCTGAGGTCTGATACTCACTGACTGTTCTGAA

>gi|4557510|ref|NM\_001348.1| Homo sapiens death-associated protein kinase 3  
 (DAPK3), mRNA (SEQ ID NO: 33)

GTGCCATTAGGGACTCCTGAGGTCTATCTCCAGGCTGCGGTGACTGCACTTCCCTGGAGTGGAAAGC  
 TGCTGGAAGCGGGACCGGCCATGTCCACGTTGAGGACGTGGAGGACATTATGAGATGGG  
 GGAGGAGCTGGCAGCGGCCAGTTGCGATCGTGCAGGAAAGTGCAGGAGCAGGGCACAGGGCAAGGAGTAC  
 GCAGCCAAGTTCATCAAGAACGCGGCCTGTCATCCAGGCCGCTGGGTGAGCCGGAGGAGATCGAGC  
 GGGAGGTGAACATCCTGCGGGAGATCCGGCACCCAAACATCATCACCTGCAACGACATCTCGAGAACAA  
 GACGGACGTGGCCTCATCCTGGAGCTGGTCTCTGGGGAGCTTGTACTTCCCTGGGGAGAAAGAG  
 TCGCTGACGGAGGACGAGGCCACCAAGTCTCAAGCAGATCTGGACGGCTTCACTACCTGCACTCTA  
 AGCGCATCGCACACTTGACCTGAAGCCGAAACATCATGCTGTTGACAAGAACGTCGCAACACCACG  
 AATCAAGCTCATCGACTTGGCATCGCACAAGATCGAGGCGGGGAACTGAGTTCAAGAACATCTCGG  
 ACCCCGGAGTTGTGGCCCCAGAGATTGTGAACTATGAGCCGCTGGGCTGGAGGCGGACATGTGGAGCA  
 TCGGTGTACCTCACCTATCTCTGAGCGGTGACCTCCGGTCTGGGAGGACCAAGCAGGAGACGCT  
 CACCAACATCTAGCCGTGAACACTCGACTTGCACGAGGAGTACTTCAGCAACACCAGCGAGCTGGCAAG  
 GACTTCATTGCCGGCTGCTGTCAAAGATCCAAGCGGAGATGACCATGCCAGAGCCTGGAACATT  
 CCTGGATTAAGCGATCCGGCGGAAACGTGCGTGGTGGAGGACAGCGGCCAGCCGAGCGGGCG  
 CCTGAAGACACCGCTGAAGGAGTACACCATCAAGTCGCACTCCAGCTGCCGAAACACAGCTAC  
 GCCGACTTCGAGCGCTCTCCAAGGTGCTGGAGGAGGCGGGCCGAGGAGGGCTGCGAGCTGC  
 AGCGCAGCCGGCGCTGCCACGAGGACGTGGAGGCGCTGGGCCATCTACGAGGAGAACGGCTG  
 GTACCGCGAGGAGAGCGACAGCCTGGCCAGGACCTGCGGAGGCTACGGCAGGAGCTGCTCAAGACCGAG  
 GCGCTCAAGCGGCAGGGCAGGGAGGAGGCAAGGGCGCTGCTGGGGACCAAGCGGCCCTCAAGCGCCGCT  
 TCAGCCGCTGGAGAACCGCTACGGAGGCGCTGGCCAAGCAAGTAGCCTCCGAGATGCGCTGAGGA  
 CCTCGTGCAGCCCTGGAGCAGGAGAACGCTGAGGCGTGGAGTGGACGCTGCGCTAGGCGAGTGGGT  
 GGGCCAGGCCCCAGGACAGCGGAGCTCGGCTGCGTGGGGCGCTTCTGTGGACGCTGCGCTCCCA  
 TCGCCCGGGTGCCTGTCCTGCCCAGCGCCACCAAGGCTGGAGGAGGAGTGGAGGAGCTGGAGGCCAGGCC  
 CGTAAGTTCGCAAGGAGGGGTGGGTGTGGAGCAGGGCTGCTTCTACACAGCCTCTACGCTGGCCTTCA  
 CCTTCACCCCTGCATCGTGGTGAACCTGGGACCCCTCAGGAGCGCTGGGCCATCTGAGGGTTG  
 GGACCCACCGAGGCGAGGGCGCCGAATGCAGCCCTGGTCAAGGCCGGAGGAGGGTTGCGGGTAG  
 TTGCACTGGACAATTGGCGGGGTGCTGCCAGGAGGAGGAGGAGTGGAGGAGCTGGAGGCCAGGGGA  
 GGGTGGGATGGACGGCGGACAGGAGTCCCACGCTGCTGGTGGCGCCGGCTTGGTGGGGTCTTCCAC  
 TGTGTGCCCTCTGCCAGGGCGGTCCCCGGTGTGGGTGCCCTGCTGCCACTCCTCCGAGGCC  
 CATCGTGCAGCCCTGTGGACGCCAGGAGAGAAGAGAAATAACTGGCTTC  
 CAGAT

>gi|4557511|ref|NP\_001339.1| death-associated protein kinase 3 [Homo sapiens]  
(SEQ ID NO: 34)

MSTFRQEDVEDHYEMGEELGSGQFAIVRKCRQKGTKEYAAKFIKKRRLSSSRGVSEEIEREVNLRE

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IRHPNIITLHDIFENKTDVVLILELVS GGELFDLAEKESLTEDEATQFLKQILDGVHYLHSKRIAHFDL  
 KPENIMLLDKNVPNPRIKLIDFGIAHKIEAGNEFKNIFGTPEFVAPEIVNYEPLGLEADMWSIGVITYIL  
 LSGASPFLGETKQETLTNISAVNYDFDEEYFSNTSELAKDFIRRLVKDPKRRMTIAQSLEHSWIKAIRR  
 RNRGEDSGRKPERRLKTRLKEYTIKSHSSLPPNNSYADFERFSKVLEEEAAEGLRELQRSRLCH  
 EDVEALAAIYEEKEAWYREESDSLQDLRRLRQELLKTEALKRQAQEEAKGALLGTSGLKRRFSRLENRY  
 EALAKQVASEMRFVQDLVRALEQEKLQGVECGLR

>gi|2911155|dbj|AB007144.1| Homo sapiens mRNA for ZIP-kinase, complete cds  
(SEQ ID NO:35)

GTGCCATTAGGGACTCCTGAGGTCTATCTCAGGCTCGGTGACTGCACCTTCCCTGGAGTGGAAAGC  
 TGCTGGAAGCGGACCGGCCATGTCCACGTTAGGCAGGAGGACGTGGAGGACATTATGAGATGGG  
 GGAGGAGCTGGCAGCGGCCAGTTGCATCGTGGAAAGTGCAGGAGGACGTGGAGGACATTATGAGATGGG  
 GCAGCCAAGTCATCAAGAACGCGCCGCTGTATCCAGCCGGCTGGGGTGAAGCCGGAGGAGATCGAGC  
 GGGAGGTGAACATCCTCGGGAGATCCGGCACCCAACATCATCACCCCTGCACGACATCTCGAGAACAA  
 GACGGACGTGGCTCATCCTGGAGCTGGCTCTGGGGAGCTTTGACTTCCTGGCGAGAAAGAG  
 TCGCTGACGGAGGACGAGGCCACCCAGTTCTCAAGCAGATCTGGACGGCTTCACTACCTGCACTCTA  
 AGCGCATCGCACACTTGACCTGAAGCCGGAAACATCATGCTGCTGGACAAGAACGTGCCAACCCACG  
 AATCAAGCTCATCGACTTCGGCATCGCGACAAGATCGAGGCGGGAACGAGTTCAAGAACATCTCGGC  
 ACCCGGAGTTGTGGCCCAGAGATTGTGAACATATGAGCCGCTGGGCTGGAGGCGGACATGTGGAGCA  
 TCGGTGTATCACCTATATCCTCTGAGCGGTGCATCCCCGTTCTGGCGAGACCAAGCAGGAGACGCT  
 CACCAACATCTCAGCCGTGAACTACGACTTCGACGAGGAGTACTTCAGCAACACCAGCGAGCTGGCAAG  
 GACTTCATTGCCGGCTGCTCGTCAAAGATCCAAGCGGAGAATGACCATTGCCAGAGCCTGGAACATT  
 CCTGGATTAAGCGATCCGGCGGGAACGTGCGTGGAGGACAGCGCCGCAAGCCGAGCGGGCG  
 CCTGAAGACCAACCGCTGAAGGAGTACACCATCAAGTCGACTCCAGCTGCCAGAGCCTGGAACACAGCTAC  
 GCCGACTTCGAGCGCTCTCCAAGGTGCTGGAGGAGGCCGGCGCCGAGGAGGGCTGCGCGAGCTGC  
 AGCGCAGCGCCGCGCTGCCCACGAGGACGTGGAGGCCGCTGGGCCATCTACGAGGAGAAGGAGGCCTG  
 GTACCGCGAGGAGAGCGACAGCCTGGCCAGGACCTGGGAGGCTACGGCAGGAGCTGCTCAAGACCGAG  
 GCGCTCAAGCGGCAAGCGCAGGAGGAGCCAAGGGCGCGTGTGGGAGGCCAGCGCCCTCAAGCGCCGCT  
 TCAGCGCCTGGAGAACCGCTACGAGGCGCTGGCCAAGCAAGTAGCCTCCAGAGATGCGCTTCGTGCAGGA  
 CCTCGTGCAGCCCTGGAGCAGGAGAAGCTGCAAGGCGTGGAGTGCAGGCTGCGCTAGGCGCAGTGGGT  
 GGGCCAGGCCCAAGGACAGCCGGAGCTGGCCTGCGTGGGGCGCTTCTGTGGACGCTGCGCCTCCA  
 TCGCCCGGGTGCCTGTCCTGCCAGCGCCACCAGGCTGGAGGCGGAGTGGAGGAGCTGGAGGCCAGGCC  
 CGTAAGTTCGCAAGGCAGGGGTGGGTGTGGGACGGGCTGCTCTACACAGCCTACGCTGGCCTTCA  
 CCTCACCCCTGCATCGTCGGTGACCCCTGGACCCCTCCAGGCAGCGTGGCCTGTCAGGCTGAGGGTT  
 GGACCCACCGAGGCGCAGAGCGGCCGAATGCAGCCCTGGTCAGGCCGGAGGAGGGTTGCGGGTAG  
 TTGCA CGGACAATT CGCGGGGTGCTGCCTGTTGCTGCCATTAGCCAGGAGGAGTGTGGAGCGGGGA  
 GGGTGGGATGGACGGCGGACAGGCAGTCCCCACGCTGCTGGGTGGCGCCGGCTTGGTGGGTCTTCCAC  
 TGTGTGCCCTCTGCCAGGCCGGTCCCCCGGTGGGGTGCCTGCTGCGACTCCTCCGAGGCC  
 CATCGTCGCCTGTGGACGCTAGGCAAGAGCGCCCTGCAAGCCAAGAGAAATAACTGGCTTC  
 CAGAT

>gi|2911156|dbj|BAA24955.1| ZIP-kinase [Homo sapiens] (SEQ ID NO:36)  
 MSTFRQEDVEDHYEMGEELSGQFAIVRKCRQKGTGKEYAKFIKKRLLSSRRGVSRREIEREVNLRE  
 IRHPNIITLHDIFENKTDVVLILELVS GGELFDLAEKESLTEDEATQFLKQILDGVHYLHSKRIAHFDL  
 KPENIMLLDKNVPNPRIKLIDFGIAHKIEAGNEFKNIFGTPEFVAPEIVNYEPLGLEADMWSIGVITYIL  
 LSGASPFLGETKQETLTNISAVNYDFDEEYFSNTSELAKDFIRRLVKDPKRRMTIAQSLEHSWIKAIRR  
 RNRGEDSGRKPERRLKTRLKEYTIKSHSSLPPNNSYADFERFSKVLEEEAAEGLRELQRSRLCH  
 EDVEALAAIYEEKEAWYREESDSLQDLRRLRQELLKTEALKRQAQEEAKGALLGTSGLKRRFSRLENRY  
 EALAKQVASEMRFVQDLVRALEQEKLQGVECGLR

>gi|5162883|dbj|AB022341.1| Homo sapiens mRNA for ZIP kinase, complete cds  
(SEQ ID NO:37)

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GCACTTCCCTGGAGTGGAAAGCTGCTGGAAGGCCGACGGCCCATGTCCACGTTAGGCAGGAGGACG  
 TGGAGGACCATATTGAGATGGGGGAGGAGCTGGGCAGCGGCCAGTTGCGATCGTGCAGAAGTGCAGGCA  
 GAAGGGCAGGGCAAGGAGTACGAGCCAAGTCATCAAGAAGCGCCGCTGTATCCAGCCGGCTGG  
 GTGAGCCGGAGGAGATCGAGCAGGGAGGTGAACATCCTGCGGGAGATCCGGCACCCAAACATCATCACCC  
 TGCACGACATCTCGAGAACAGACGGACGTTGCTCATCCTGAGCTGGCTCTGGGGAGCTCTT  
 TGACTTCCTGGCGAGAAGGAGTCGCTGACGGAGGAGGCCACCCAGTTCTCAAGCAGATCTGGAC  
 GGCAGTCACTACCTGCACTCTAACGCGATCGCACACTTGACCTGAAGCGAAAACATCATGCTGCTGG  
 ACAAGAACGTGCCAACCCACGAATCAAGCTCATCGACTCGGCATCGCGACAAGATCGAGGCGGGAA  
 CGAGTTCAAGAACATCTCGGCACCCGGAGTTGTCAGGCCCCAGAGATTGTAACATATGAGCCGCTGGC  
 CTGGAGGCGGACATGTTGAGCATCGGTGTCATCACCTATATCCTCTGAGCGGTGCACTCCCGTTCTGG  
 GCGAGACCAAGCAGGAGACGCTCACCAACATCTCAGCGTGAACGACTTCGACGAGGAGTACTTCAG  
 CAACACCAGCGAGCTGCCAACGGACTTCATCGCCGCTGTCGTCAGGAGATCCCAAGCGGAGAATGACC  
 ATTGCCCAGAGCCTGAAACATTCTGGATTAAGGCGATCCGGCGGAAAGTGCCTGGTGGAGGACAGCG  
 GCCGCAAGCCCAGCGGGCGCTGAAGACCACGCGCTGAAGGAGTACACCATCAAGTCGCACTCCAG  
 CTGCGCCCAACAACAGCTACGCCACTTCGAGCGCTCTCCAAGGTGCTGGAGGAGGCCGGCGGCC  
 GAGGAGGGCTGCGCGAGCTGAGCGCAGCCGGCGCTTGCCACGAGGACGTTGGAGGCGCTGGCGCCA  
 TCTACGAGGAGAAGGAGGCGCTGGTACCGCGAGGAGGCGACAGCCTGGGCCAGGACCTGCGGAGGCTACG  
 GCAGGAGCTGCTCAAGACCGAGGCGCTCAAGCGGCAGGCGCAGGAGGAGGCCAGGGCGCTGCTGGGG  
 ACCAGCGGCCTCAAGCGCCGCTTCAGCCGCTGGAGAACCGTACGAGGCGCTGGCCAAGCAAGTAGCCT  
 CCGAGATGCGCTTCGTGCAAGGACTCGTGCAGGCCCTGGAGCAGGAGAACGCTGCAGGGCGTGGAGTGC  
 GCTGCGCTAGGCGCAGTGGGTGGCCAGGCCCCAGGACAGCGAGCTCGCCCTGCGGTGGGGCGCTT  
 CCTGTGGACGCTGCGCCTCCCATCGCCGGGTGCTGCTTGCCCAGCGCCACCAGGCTGGAGGCGGAG  
 TGGGAGGAGCTGGAGGCCAGGCCGTAAGTCGCAAGCAGGGTGGGTGTTGGACGGGGCTGCTCTAC  
 ACATCCTCCACGCTGGCTTCACCTCACCCCTGCACTCGTGGTACCCCTGGGACCCCTCAGGCAGCGT  
 GCTGTGGCACCGTGAGGGTTGGGACCCACCGAGGCGCAGAGGCGCCGAATGCAGCCCTGGTTAGGC  
 CCGGAGGAGGGTTGGGGTAGTTGCAACGACAATTCCGGGGGTGCTGCCTGTTGCTGCCATTAGCCCA  
 GGAGGAGGCTGGGGACGGGGAGGGTGGGATGGACGGGGACAGGCAGTCCCACGCTGCTGGGTGGCG  
 CGGGCTGGGGTCTTCACTGTGTGCCCTCTCGCGAGGCCGGTCCCCGGGTGTTGGGTGCCCTG  
 CTGCGGACTCTCCCGAGCCCCATCGCGCCTGTGGACGCCTAGGCAAGAGCGGCCCTGCAAGCCA  
 AGAGAAATAAAATCTGGCTCCAG

>gi|5162884|dbj|BAA81746.1| ZIP kinase [Homo sapiens] (SEQ ID NO:38)  
 MSTFRQEDVEDHYEMGEELGSGQFAIVRKCRQKGTKEYAAFKFIKKRILSSRRGVSEEIEREVNLRE  
 IHPNIIITLHDIFENKTDVVLILELVSAGELDFLAEKESLTEDEATQFLQIILDGVHLYLHSKRIAHFDL  
 KPEINMLDKNVPNPKLIDFGIAHKIEAGNEFKNIFGTPFVVAPEIVNYEPLGLEADMWSIGVITYIL  
 LSGASPFLGETKQETLTNISAVNYDFDEEYFSNTSELAKDFIRRLVKDPKRRMTIAQSLEHHSWIKAIRR  
 RNRGEDSGRKPERRRLKTRLKEYTIKSHSSLPPNNSYADFERFSKVLEAAAAEGLRELQRSRRLCH  
 EDVEALAAIYEKEAWYREESDSLQDLRRLRQELLKTEALKRQAQEEAKGALLTSGLKRRFSRLENRY  
 EALAKQVASEMRVQDLVRALEQEKLQGVECLR

Gas6

GH1-50-PCR-G3F1 (SEQ ID NO:39)  
 GCGCAGGAATCTGGTCATCAAGGTCAACAGGGATGCTGTCATGAAAATCGGGTGGCCGGGACTTGTCCAACCG  
 AGCGAGGACTGTATCATCTGAACCTTACCGTGGGAGGTATTCCCTCATGAGAAGGACTACGTGCAGCTATAAAC  
 CTCGTCTGGATGCTGCACTGAAGAGCGCGCAGAACAC

>gi|4557616|ref|NM\_000820.1| Homo sapiens growth arrest-specific 6 (GAS6),  
 mRNA (SEQ ID NO:40)  
 CGCGAGCCGCCGCCGCCGCCGCCGATGTGACCTTCAGGGCGCCAGGACGGGATGACCGGAGCCT  
 CGGCCCCGGCGCCGCCGCTCGCCTCGGCCTCCGGGCGCTCTGACCGCGCTCCCCGGCCATGGCC  
 CCTTCGCTCTGCCCGGGCCCGCCCTCGCGCGCGCAGCTGCTGCTGCTGGCGCG

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AGTGCAGCGCTTGCAGCGCTGTTGCCGGCGCGAGGCCACGCAGTCCTGCCGGCCAGGCAGGCCCGCG  
 CTTTCAGGTCTCGAGGAGGCCAACGCAGGGCACCTGGAGAGGGAGTGCCTGGAGGAGCTGTGCAGCCGC  
 GAGGAGGCGCGGGAGGTGTTCGAGAACGACCCGAGACGGATTATTTACCAAGATACTTAGACTGCA  
 TCAACAAAGTATGGCTCCGTACACCAAAACTCAGGCTTCGCCACCTGCGTGCACAAACCTGCGTACCA  
 GTGCACGCCAACCCCTGCGATAGGAAGGGACCCAAGCCTGCCAGGACCTCATGGGCAACTTCTCTGC  
 CTGTGAAAGCTGGCTGGGGGGCGCTCGAGAACAGATGTCACAGAATGCGAGCCAGGAGAACGGGG  
 GCTGCCCTCAGATCTGCCACAACAAGCCGGTAGCTTCACTGTTCCACTGTCCTGCCACAGCGGCTCGAGCTCTC  
 CTCTGATGGCAGGACCTGCCAACAGACATAGACGAGTGCAGACTCGGAGGCCTGCCGGAGGCGCGCTGC  
 AAGAACCTGCCGGCTCTACTCCTGCCCTGTGACGAGGCTTGCGTACAGCTCCAGGAGAACGGCTT  
 GCCGAGATGTGGACGAGTGTCTGCAGGGCGCTGTGAGCAGGTCTGCGTGAACCCCCAGGAGCTACAC  
 CTGCCACTGTGACGGCGTGGGGCCTCAAGCTGTCCAGGACATGGACACCTGTGAGGACATCTGCCG  
 TCGTGCCTTCAGCGTGGCAAGAGTGTGAACTGCTGTACCTGGCGGATGTTCACTGGGACCCCCG  
 TGATCCGACTGCCTCAAGAGGCTGCAGCCCACCAGGCTGGTAGCTGAGTTGACTTCCGGACCTTGA  
 CCCCGAGGGCATCCTCCTTGGCGAGGCCACCAGGACAGCACCTGGATCGTGCCTGCCCTGAGAGCC  
 GGCGGCTGGAGCTGCAGCTGCCTACAACGGTGTGCCGTGTCACCAGCAGCGGCCGGTACATCAACC  
 ATGGCATGTGGCAGACAATCTGTGAGGAGCTGGCGGAACTGGTACATCAAGGTCACAGGGATGC  
 TGTGATGAAATCGCGTGGCCGGGACTTGTGAACTGGCAGGACTGTATCATCTGAACCTGACC  
 GTGGGAGGTATCCCTCCATGAGAAGGACCTGTGACGCTATAAACCTCGTCTGGATGGCTGCATGA  
 GGAGCTGGAACGGTGAACGGAGAACACCACCATCAGGAAACGGTGAAGTGAACACGAGGATGCA  
 GTGCTTCTCGGTGACGGAGAGAGGCTTTTACCCCCGGAGCGGCTTCGCCTCTACAGCCTGGACTAC  
 ATGCGGACCCCTCTGGACGTCGGGACTGAATCAACCTGGAAAGTAGAAGTCGTGGCTCACATCCGCCAG  
 CCCAGACACAGCGTGTGTTGCGCTCTGGGCCCCGACCTCCGTGCCGTGCCTCTGTGGCACT  
 GGTAGACTATCACTCACGAAGAAACTCAAGAACGAGCTGGTGGCTGGCGTGGAGGATGACGGCTTG  
 GCCCTAATGGAGATCAAGGCTCGACGGCAAGAGCACGCTGGTACCGTCTCGTGAAGGGACGGTGGAGG  
 CCACCCCTGGAGGTGGACGGCACCAAGGGCCAGAGCAGGTGAGCGCCGCGCAGCTGAGGAGAGGCTGGC  
 CGTGTGAGAGGCACCTGCGAGCCCCGTGTCACCTTGCTGGCGCTGCCAGATGTGCCGGTACT  
 TCAGCGCCAGTCACCGGTTCTACCGCGGCTGCATGACACTGGAGGTCAACCGGAGGCTGCTGGACCTGG  
 ACGAGGCAGCGTACAAGCACAGGACATCACGGCCACTCTGCCCGGCTGGAGGCCGCCAGCTTA  
 GGCCCCCACGGAGCGCCGAGGCTCTCAGTCTGTCCGAGACAGCCGGAGGAGCCTGGGGCTCCTC  
 ACCACGTGGGCCATGCTGAGAGCTGGTTCTCTGTGACCATCCGGCTGTAACATATCTGAAAT  
 AGTGAGATGGACTTGGGGCTCTGACGCCGCGACTCAGCGTGGCCGGCGCAGGCGCA  
 GCGCAGAGCGGGCTGAAGAAAATAATTCTTATTACCAAGCGCTTCTTGACTCTAA  
 ATATGGAAAAT

>gi|4557617|ref|NP\_000811.1| growth arrest-specific 6; AXL stimulatory factor  
 [Homo sapiens] (SEQ ID NO:41)  
 MAPSLSPGPAALRRAPQLLLLLAAECALAAALLPAREATQFLRPRQRRAFQVFEEAKQGHLERECVEELC  
 SREEAREVFENDPETDYFPRYLDCAINKYGSPYTKNSGFATCVQNLPDQCTPNPCDRKGTQACQDLMGNF  
 FCLCKAGWGRLCDKDVNECSQENGCLQICHNKPGSFHCSCHSGFELSSDRTQCDIDECADSEACGEA  
 RCKNLPGSYSLCDEGFAYSSQEAKRVDVDECLQGRCEQVCVNSPGSYTCHCDGRGGLKLSQDMDTCEDI  
 LPCVPFSVAKSVKSLYLRMFSGTPVIRLFKRLQPTRLVAEFDFTFDPEGIILFAGGHQDSTWIVLAL  
 RAGRLELQLRYNGVGRVTSSGPVINHGMWQTISVEELARNLVIKVNRAVMKIAVAGDLFQPERGLYHLN  
 LTVGGIPFHEKDLVQPINPRLDGCMRSWNWLNGEDTTIQTETVKVNTRMOCFSVTERGSFYPGSGFAFYSL  
 DYMRTPLDVGTESTWEVVAHIRPAADTGVLFALWAPDRAVPLSVALVDYHSTKKLKKQLVVLAVEHT  
 ALALMEIKVCDGQEHVVTVSLRGEATLEVDTGTRGQSEVSAQLQERLAVLERHLSRSPVLTFAAGGLPDVP  
 VTSAPVTAFYRGMTLEVNRLLDDEAAYKHSITAHSCPPVEAAA

SRm160

GH1-67-PCR-G3F1 (SEQ ID NO:42)

GGTTCTCTCGTCGCTTCTCCCTTCTAAGCCTGCCCTCAGGCCCTGCCAAACCTGCAAGCCCCA  
 AGAACGCCACCCCTTGCAGCGAGGTCCGAGCCCCGAAGCCAATAACTCCCTCAGGGACTCTCGGCCAG

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CTACTCGCCTGTGGAGCGTCGCCGTCCCTGCCCTCAGCCCTCACCAAGGGACCAGCAGAAGCAGCAGCAGTGGCGGG  
GTTCCCGGAGAGGCCAGCGTGGGACAGCCGCTCCCCAGCCACAAGCGCAGAGGAGACACCTAGCCCTGGCCATG  
AGACACCGCTCTCCAGGTCTCCATAAATTGTCTTGGGGGATTNCACCACCCATGCTTGTGAGCCACAAGGAGT  
GTTCTTCTTCCCCAGCAGAACCGTGGAAAGGTCTTGTCTCGCTCTTTAACCTTNGCAGCCTTGATTGGAG  
GGGCCTCCCTTTCCTCCCCCTTTTTAG

>gi|19923465|ref|NM\_016333.2| Homo sapiens serine/arginine repetitive matrix 2 (SRRM2), mRNA (SEQ ID NO:43)

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AGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATAACAGTCATTCTGGTCCTCCTCACCA  
GATACCAAAGTGAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTCACCATACCCCAAAG  
TAAAGGCCAAACTCCACCGGGCCAAGTCTTCTGGATCAAAGTCACCATGTCCCAAGAGAAGTCTAA  
AGACTCACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTGTGAGGAGTAAATCTAGCACACCA  
GGCGAGAGCTATTTGGTGTCTCATCTGCAACTGAAAGGACAATCTCAAACCTCACAGACCACAGAT  
CTGATACTTCAGTCCAGAAGTGGAGACAGAGTCATTCAAACATCACCCTCTGAGGAGCAAATCTCAAAC  
ATCACCTAAGGGAGGTGGTCCAGGTCTTCATCTCAGTCAGTGGCATCCAGATCTCCAATAAGA  
CAAGATAGAGGTGAGTCTCAGCGAGTCTATGTTGAAATCTGGAATGTCTCTGAGCAGAGCAGGTTCC  
AGTCTGACTCTTCTTCATATCCTACAGTGGACTCGAATTCTCTTGGGAGAGTAGATTGGAGACTGC  
TGAATCAAAGAGAAAATGGCTTACCCCCCTCAGGAGGATGCTACTGCATCACCTCTAGACAGAAAGAC  
AAATTAGTCCCTTCCAGTACAGGATAGGCTGAGTCTCACTGGTATTCAAAGACACACTTAGAACCC  
CGCCAAGAGAAAAGAGTGGTGGTGGCATCTCAGAAACAAAAGAGCAAATAGTCATTGCCAACGTC  
AAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCCGAGGCCAAATCCTGTCAT  
TTGTCTCAGAACTTAAAGAAATGTCACAAGTAACCTTGAATCATCTCTGAAGTAGAAGAAAGGCCTG  
CTGTGTCTTGACTCTGATCAGAGCAGTCACAGGCTTGGAGCAGTAGAAGTCCCTCAATGGC  
CTCATCTTGGGTGGCCACATTTCTCCAGAACATAAAGAACACTGTCTAACCCCCACTCAGGGAGAAC  
AGCTTGGATCACCTTAAAGAACACTCAGGCCACTGGTACAGAAATGAATACTGGATTTCTT  
CTGAGGTTAAAGAAGATTGAATGGACCGTTCTAATCAGCTGAAACAGATCCATCTAGACATGAA  
AGAACAAATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGAGGG  
ATGCTTCAAATCAGAGCATCTTCACCTGCTTGATGCTGACCCAGAACACCCCTGAGAGAAAGAA  
GTAGTTCTGCATCTTCTCTGAAATGAAAGATGGTTACCCAGAACTCCATCAAGGAGAAGCAGGCTGG  
GTCTCTCCAGGACTTAGAGATGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGCTCTCTGG  
ATGAAAGATATACTAGAACGCCATTAGAGGGAGAAGCGAATGTGATTCTCCCCAGAACCGAAAGCTT  
TGCCCTCAGACTCTAGGCCAGGGAGTCGTTCTCCATCATCCCCAGAGCTAACACAAGTGTCTAACCC  
CCAGAGAGAAAAGCGGGTCAAAATCATCAGTTGATCAGAAAACCTGTGGCTCGGACTCCCTGGGAG  
AGAAGTCGTTGGGATCCTCTCAAGAACCTTGATGTGAAACCCAGTGCATCCCCAGGAAAGAAGTGAGT  
CAGACTCTCTCCAGATTCTAAAGCCAAGACACGAAACCCACTTCGGCAGAGGAGTCGGTCTGGATCATC  
TCCAGAGGTTGACAGCAAATCTCGACTATCCCCTGGCGCAGTAGGTCTGGTCTCCCTGGAAAGTGAAA  
GATAAGCCAAGAGCAGCACCCAGGGCACAGAGTGGTTCTGATTCTCTCTGAACCTAAAGCTCCAGCCC  
CTCGGGCCCTCCAGACGAAGCAGATCAGTTCATCAAGCAAAGGCAGAGGCCCTCTCCTGAAGGAAG  
CAGCAGTACCGAGTCCTCTGAACATCCGCCAAATCCAGAACCTGCTCGAGAGGTTCCAGGTCT  
CCAGGCCAAAGACCAAGTCTCGTACACCACCTCGACGTCGAGCTCGATCATCTCCGGAGCTAACAA  
GGAAGGCCAGACTGTCCCGTAGAAGCCGCTCGCTCATCCTCACCAAGAAACTCGCTCTAGAAACTCCCC  
AAGGCACCGGAGAAGTCCCTCAGTGTCTCCCCGGAGCCAGCGAAAATCGAGGTCTCACGCCACGG  
CGCTCAGCTCATCTCCACGCACTAACAGAACCTCAAGGAGAGGCCGCTCTCTGCCAAAGCCTCGTG  
GACTCCAGAGGTCCCCTCCGCTCAAGGAGAGAAAACAAGAACACCCGACGTCGAGATAGGTCTGG  
ATCTTCTCAGTCAACCTCTCGGCGAAGACAGCGGAGCCGGTCAAGGTGCGGGTTACTCGCGGGAGG  
GGAGGCTCTGGTTACTCAAGGTCAACCTGCCCAGGAAAGTCTCCGGACCTCTCGACGCCGAA  
GAGGCCGCTCGGACACCCCAACAGCTGGAAGCAGCTCGCTCACGCACATCACCGAGCCCGTGGAA  
ACGCTCTAGATCTCGAGCCTCTCAGCCACTCACCGGGATCCAGGTCCAGAACCCCCCTGATAAGCCGA  
CGTAGGTCCAGATCTCGAACCTCACCAGTCAGCCGGAGACGGTCAAGGTCCAGGACTTCAGTGA  
GAAGATCCCCGTCAAGAGCATCCCCAGTGAGCAGAAGGGGATCCAGATCCAGAACGCCACCA  
CCGTCGTTCAAGGTCTAGAACGCCAACACGCCGCGCTCCGTTCTAGAAACTCCACCA  
AGAAGGTCCAGATCCAGGACTCCACCAAGTAACCAGGAGGCGATCTCGAAGCAGAACCTCGCT  
GCAGAACATCAAGATCCAGAACATCTCCGGTACCCGAAGGAGATCTCGATCTCGCACATCTCAGTA  
TCGAAGAACGGTCCCGCTCGAACCTCACAGTGACACGCCGCGCTCTAGGTCCGGACACCTCCAGCT  
ATTCCGGCGCCGCTAGATCTCGAACGCCACTGTTACCAAGCAGCTCGCTCACCA  
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GACCACCAGAGAACATCTGCCAGAAAATCATGCTCAGTCCAGGATTGCACTGCCCTGACAGCTATCA  
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>gi|19923466|ref|NP\_057417.2| splicing coactivator subunit SRm300; RNA  
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 ISDSYVDGSSFDPQRRAREAKQPAPEPPKPYSLVRESSSSRSPTPKQKKKKKKDRGRRSSESSSPRRERK  
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FSASPMILKSGMSPEQSRFQSDSSSYPTVDSNSLLQSRLEAESKEKMALPPQEDATASPPRQDKFSPF  
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CCCCAAGGCACCGGAGAAGTCCCTCAGTGTCTCCCCGGAGCCAGCCGAAAAATCGAGGTCTCACGCCG  
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Non-muscle myosin heavy chain

GH1-90-PCR-G3F1 (SEQ ID NO:47)

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>gi|22507396|ref|NM\_002473.2| Homo sapiens myosin, heavy polypeptide 9, non-muscle (MYH9), mRNA (SEQ ID NO:48)

ATGGCACAGCAAGCTGCCGATAAGTATCTCTATGTGGATAAAA ACTTCATCAACAATCCGCTGGCCAGG  
CCGACTGGCTGCCAAGAAGCTGGTATGGGTGCCCTCCGACAAGAGTGGCTTGAGCCAGCCTCAA  
GGAGGAGGTGGCGAAGAGGCCATCGTGGAGCTGGTGAGAATGGGAAGAAGGTGAAGGTGAACAAGGAT  
GACATCCAGAAGATGAACCCGCCAAGTCTCCAAGGTGGAGGACATGGCAGAGCTCACGTGCCCAACG  
AAGCCTCGGTGCTGCACAACCTCAAGGAGCGTTACTACTCAGGGCTCATCTACACCTATTAGGCCGTT  
CTGTGTGGTCATCAATCCTACAAGAACCTGCCATCTACTCTGAAGAGATTGTGGAAATGTACAAGGC  
AAGAAGAGGCACGAGATGCCCTCACATCTATGCCATCACAGACACGCCCTACAGGAGTATGCAAG  
ACCGAGAAGATCAATCCATCTTGCACTGGTGAATCTGGAGCTGGCAAGACGGAGAACACCAAGAAGGT  
CATCCAGTATCTGGCTACGTGGCTCCCGACAAGAGCAAGAAGGCCAGGGCGAGCTGGAGCGCAG  
CTGCTGCAGGCCAACCCCATCTGGAGGCCCTCGGAACGCCAACCGCTGAAGAATGACAACCTCC  
GCTTCGGCAAATTCAATCGCATCAACTTGTCAATGGCTACATTGTGGAGGCCAACATTGAGACTTA  
TCCTTTGGAGAAATCTCGTGTATCCGCCAAGCCAAGGAAGAACGGACCTCCACATCTTCTATTATCTC  
CTGCTCTGGGCTGGAGAGCACCTGAAGACCGATCTCTGTGGAGCCGTACAACAAATACCGCTCCTGT  
CCAATGGACACGT CACC ATCCCCGGCAGCAGGACAAGGACATGTTCCAGGAGACCATGGAGGCCATGAG  
GATTATGGGATCCCAGAAGAGGAGCAAATGGGCTGCTGCCGGCATCTCAGGGTTCTCAGCTCGGC  
AACATCGTCTCAAGAAGGAGCGAACACTGACCAGGGCTCCATGCCGCACAACACAGCTGCCAAAGG  
TGTCCCATCTCTGGGTATCAATGTGACCGATTCACCA GAGGAATCCTACCCCGCGCATCAAGGTGGG  
ACGGGATTACGTCCAGAAGAGCGCAGACTAAAGAGCAGGCTGACTTTGCCATCGAGGCCCTGGCAAGGCG  
ACCTATGAGCGGATGTTCCGCTGGCTGGTGCTGCCATCAACAAGGCTCTGGACAAGACCAAGAGGCAGG  
GCCGCTCCTCATCGGATCCTGGACATTGCCGGCTCGAGATCTTGATCTGAACCTGTTGAGCAGCAG  
GTGCATCAATTACACCAATGAGAAGCTG CAGCAGCTCTCAACCAACACCATGTTCATCTGGAGCAGGAG  
GAGTACCAGCGCAGGGC ATCGAGTGGAACTTCAATCGACTTGGCCTCGACCTGCAGCCTGCATCGACC  
TCATTGAGAAGCCAGCAGGCCGGCATTCTGCCCTGCTGGACGAGGAGTGCTGGTCCCCAAAGC

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CACCGACAAGAGCTTCGTGGAGAAGGTGATGCAGGAGCAGGGCACCCACCCCAAGTTCCAGAAGCCCAAG  
CAGCTGAAGGACAAAGCTGATTTCTCATTATCCACTATGCCGGCAAGGTGGATTACAAAGCTGACGAGT  
GGCTGATGAAGAACATGGATCCCTGAATGACAACATCGCCACACTGCTCCACCAGTCTCTGACAAGTT  
TGTCTCGGAGCTGTGGAAGGATGTGGACCGCATCATCGGCTTGGACCAGGTGGCCGGATGTCGGAGACC  
GCACGTCCCCGGGCTTCAAGACCGGAAAGGGCATGTTCCGCACTGTGGGGCAGCTTACAAGGAGCAGC  
TGGCCAAGCTGATGGCTACGCTGAGGAACACGAACCCCAACTTGTCCGCTGCATCATCCCCAACACGA  
GAAGAAGGCCGGCAAGCTGGACCCGATCTGTGCTGGACCAGCTGCGCTGCAACGGTTCTCGAGGGC  
ATCCGTATCTGCCGCCAGGGCTTCCCAACAGGGTGGCTTCCAGGAGTTCCGAGAGATATGAGATCC  
TGACTCCAAACTCCATTCCAAGGGTTCATGGACGGGAAGCAGGCAGTGCCTCATGATAAAAGCCCT  
GGAGCTCGACAGCAATCTGTACCGCATTGGCCAGAGCAAAGTCTTCCGTGCCGGTGTGCTGGCCAC  
CTGGAGGAGGAGCAGACCTGAAGATCACCGACGTCATAGGGTCCAGGCCCTGCTGCAGGGCTTAC  
TGGCCAGGAAAGCATTGCAAGCGGCAGCAGCAGCTTACGCCATGAAGGTCTCCAGCGGAACTGCGC  
TGCCTACCTGAAGCTGCCAACTGGCAGTGGCTGGCGGTCTCACCAAGGTCAAGCCGCTGCTGCAGGTG  
AGCCGGCAGGAGGAGGAGATGGCAAGGAGGAGGAGCTGGTAAGGTCAAGAGAGAACAGCTGGCTG  
CGGAGAACAGGCTACGGAGATGGAGACGCTGCAGTCTCAGTCATGGCAGAGAAATTGAGCTGCAGGA  
GCAGCTCCAGGCAGAAACCGAGCTGTGTGCCAGGGCTGAGGAGCAGCTCCGGGCCCTGACCGCCAAGAAG  
CAGGAATTAGAAGAGATCTGCCATGACCTAGAGGCCAGGGTGGAGGAGGAGGAGCAGCAGCACC  
TGCAGGCGGAGAAGAAGAAGATGCAGCAGAACATCCAGGAGCTTGAGGAGCAGCTGGAGGAGGAGAG  
CGCCCGGAGAACAGCTGCAGCTGGAGAAGGTGACCACCGAGGCGAACGCTGAAAAAGCTGGAGGAGGAGC  
ATCATCCTGGAGGACCAACTGCAAGCTGCCAAGGAAAAGAAAAGTCTGGAAGACAGAATAGCTGAGT  
TCACCACCAACCTCACAGAACAGGAGGAGAAATCTAAGAGCCTGCCAAGCTCAAGAACAGCATGAGGC  
AATGATCACTGACTTGGAAAGAGGCCCTCCGAGGGAGGAGAACAGCAGCAGGAGCTGGAGAACAGCCGC  
CGGAAGCTGGAGGGAGACTCCACAGACCTCAGCAGCACATGCCAGCTCCAGGCCAGATGCCGGAGC  
TCAAGATGCAGCTGCCAAGAACAGGAGGAGCTCCAGGCCCTGGCAGACTGGAAAGAGGAAGCTGC  
CCAGAACATGCCCTCAAGAACAGATCCGGAGCTGGAATCTCAGATCTGAACCTCAGGAAGAACCTG  
GAGTCTGAGCGTGTCTCCAGGAATAAGCTGAGAACAGAACAGGGACCTGGAGAACAGCTAGAGGCTC  
TGAAAACAGAGTTGGAGGACACGCTGGATTCCACAGCTGCCAGCAGCTGGAGGAGCTCAGGTCAAAACGTGAGCA  
GGAGGTGAACATCCTGAAGAACAGGCCCTGGAGGAGGAGGCCAACAGGCCACGAGGCCAGATCCAGGAGATG  
AGGCAGAACGACTCACAGGCCGTGGAGGAGCTGGCGGAGCAGCTGGAGCAGACGAAGCGGGTAAAGCAA  
ACCTCGAGAACAGACTCTGGAGAACAGAGCAGGGGGAGCTGCCAACAGGAGTGAAGGTGCTG  
GCAGGGCAAAGGGACTCGGAGCACAAGCGCAAGAACAGTGGAGGCGCAGCTGCAGGAGCTGCAGGTCAAG  
TTCAACGAGGGAGAGCCGTGCGCACAGAGCTGCCAGCAAGGTACCAAGCTGCAGGTGGAGCTGGACA  
ACGTGACCGGGCTCTCAGCCAGTCCGACAGCAAGTCCAGCAAGCTCACCAAGGACTTCTCCGCGCTGGA  
GTCCCAGCTGCAGGACACTCAGGAGCTGCTGCAGGAGGAGAACCGGCAGAACGCTGAGCCTGAGCAGCAAG  
CTCAAGCAGGTGGAGGACAGAACAGGAGAACATTCTCCGGAGCAGCTGGAGGAGGAGGAGGCCAACGACA  
ACCTGGAGAACAGATGCCACCCCTCATGCCAGGTGGCGACATGAAAAAGAACAGTGGAGGACAGTGT  
GGGTGCCCTGAAACTGCTGAGGAGGTGAAGAGGAAGCTCCAGAACAGGACCTGGAGGGCCTGAGCCAGCG  
CACGAGGAGAACGGTGGCCCTACGACAAGCTGGAGAACAGAACAGCCGGCTGCAGCAGGAGCTGGACG  
ACCTGCTGGAGGACCTGGACCACCGAGCGCAGAGCGCTGCAACCTGGAGAACAGAACAGGAGCTTGA  
CCAGCTCTGGCGGAGGAGAACAGGACATCTGCAAGTATGCAGAGGAGCAGGCCACGGGCTGAGGCCGGAG  
GCCCGAGAACAGGAGAACAGGCTCTGCGTGGCCGGGCTGGAGGAAGCCATGGAGCAGAACGGCG  
AGCTGGAGCGGCTCAACAAGCAGTTCCGACGGAGATGGAGGACCTTATGAGCTCCAAGGATGATGTGG  
CAAGAGTGTCCACGAGCTGGAGAACAGTCCAAGCGGGCCCTAGAGCAGCAGGTGGAGGAGATGAAGACGAG  
CTGGAGAGCTGGAGGAGCTGCAAGGCCACCGAAGATGCCAAGCTGCGGTGGAGGTCAACCTGCAAG  
CCATGAAGGCCAGTTGAGCGGGACCTGCAAGGCCGGACGAGCAGAGCAGGAGAACAGAACAGCAGCT  
GGTAGACAGGTGCGGGAGATGGAGGAGCTGGAGGAGAGCAGCGCTCGATGCCAGTGGCG  
GCCCGGAAGAACAGCTGGAGATGGACCTGAGAACAGGCCCTAGAGCAGCAGGTGGAGGAGATGAAGACGAG  
ACGAAGCCATCAAACAGCTGCCAGCTGCAAGGCCACAGATGAAGGACTGCAAGCGCAGGCCAGCAGGAGC  
CCGGCGCTCTGAGGAGATCTGGCCAGGCCAACAGAACAGAACAGAACAGAACAGGAGCTGAAGAGCATGGAGGCC  
GAGATGATCCAGTTGAGGAGGAGACTGGCAGCCGGAGCGTGCAGGCCAGGCCAGCAGGAGCGGG  
ATGAGCTGGCTGACGAGATGCCAACAGCAGCGAACAGGAGGCCCTGGCGTTAGAGGAGAACAGGGCT  
GGAGGCCGATGCCAGCTGGAGGAGGAGCTGGAGGAGGAGCAGGGCAACACGGAGCTGATCAACGAC

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CGGCTGAAGAAGGCCAACCTGCAGATGCACCAGATCAACACCGACCTGAACCTGGAGCGCAGCCACGCC  
 AGAAGAAGCAGAATGCTCGGCAGCAGCTGGAACGCCAGAACAGGAGCTTAAGGTCAAGCTGCAGGAGAT  
 GGAGGGCACTGTCAAGTCCAAGTACAAGGCCATCACCGCCCTCGAGGCCAGATTGCACAGCTGGAG  
 GAGCAGCTGGACAACGAGACCAAGGGAGGCCAGGCCTGCAAACAGGTGCGTCGGACCGAGAACAGC  
 TGAAGGATGTGCTGCGAGGTGGATGACGAGCGGAGGAACGCCAGCAGTACAAGGACCAGGCCACAA  
 GGCATCTACCCGCCTGAAGCAGCTCAAGCGCAGCTGGAGGCCAGAGGAGGCCAGCGGGCCAAC  
 GCCTCCCGCCGGAAACTGCAGCGCAGCTGGAGGCCACTGAGACGCCAGTGCATGAACCGCGAAG  
 TCAGCTCCCTAAAGAACAGCTCAGGCCGGGGACCTGCCGTTGCTGCCCCGCCGAAATGGCCCGAA  
 AGGCGCCGGGGATGGCTCCGACGAAGAGGTAGATGGCAAAGCGGATGGGGCTGAGGCCAAACCTGCCGAA  
 TAAGCCTCTCTCCTGCAGCCTGAGATGGACAGACAGACACCACAGCCTCCCTCCAGACCCCG  
 CAGCACGCCTCTCCCCACCTTCTTGGACTGCTGTGAACATGCCTCCTGCCCTCCGCCCGTCCCC  
 CATCCGTTTCCCTCCAGGTGTTGAGGCCATTGGCTTCTCTGCTGCATCCCCTCCAGCTCCCTC  
 CCCTGCTCAGAATCTGATACCAAGAGACAGGGCCCGGCCAGGCAGAGAGCGACCAGCAGGCTCCTCA  
 GCCCTCTCTGCCAAAAGCACAAGATGTTGAGGCAGAGGCCAGGCCGGGAGGGGCCAGAGTTT  
 TCTATGAATCTATTTCTCAGACTGAGGCCATTGGTAGTCGGAGCCCCCGCAGTCGTCAAGCCTCCCT  
 GACGTCTGCCACCAGGCCCAACTCCTCCTTCTTGCTGTTGCAATCACACGTGGTACCTCAC  
 ACACCTCTGCCCTTGGGCTCCACTCCATGGCTCTGGCGGTCCAGAAGGAGCAGGCCCTGGGCTC  
 CACCTCTGTGCAGGGCACAGAACGGCTGGGGGGAGGAGTGGATTCTCCCTCCACCTGTCCCAGGCA  
 GCGCACTGTCCGCTGTCCTCCCTGATTCTAAATGTCATCAAGTCAATGCCCTCCCTCCTTAC  
 CGAGGACAGCCTGCCACAGCAAGGCTGTCGGGTCAAGCTGGAAAGGCCAGCAGCCTCCAGTG  
 GCTTCTCCAAACACTCTGGGACCAAATATTTAATGGTTAAGGGACTTGTCCAAAGTCTGACAGCCA  
 GAGCCTAGAGGGCCAGGCCCTCCAGGCATCTGTCTACTCTAGGACTGGGCCAGGGTGGT  
 TTACCTGCACCGTTGACTCAGTATAGTTAAAATCTGCCACCTGCACAGGTATTTGAAAGCAAATA  
 AGGTTTCTTTTCCCCTTCTGTAATAAATGATAAAATCCGAGTCTTCTCACTGCCTTGT  
 AAGAGAGTAGCTCGTCCACTGGCTACACTGGTGCGAATTACTGTATTCTAACTGTTGTAT  
 ATGCTGCATTGAGACTTACGGCAAGAACGGCATTTTTAAAGGAAACAAACTCTCAAAATCATGAA  
 GTGATATAAAAGCTGCATATGCCTACAAAGCTCTGAATTAGGTCCAGTTGCTGTACAAAGGAGTGAG  
 TGAAACTCCCACCCCTACCCCTTTTATATAATAAAAGCTGCCTAGCATGTGTTGCAGCTGTACCACT  
 ACAGTAAGCTGGTTACAGATGTTTCCACTGAGCATCACAATAAGAGAACCATGTGCTACGA

>gi|12667788|ref|NP\_002464.1| myosin, heavy polypeptide 9, non-muscle [Homo sapiens] (SEQ ID NO: 49)

MAQQAADKYLVDKNFINNPLAQADWAAKLWVWPSDKSGFEPASLKEEVGEEAIVELVENGKKVKNKD  
 DIQKMNPPKFSKVEDMAELTCLNEASVLHNLKERYYSGLIYTYSGLFCVVINPYKNLPIYSEEIVEMYKG  
 KKRHEMPPHIYAITDTAYRSMMQREDQSIILCTGESGAGKTENTKKVIQYLAVVASSHKSKKDQGELE  
 RQLLQANPILEAFGNAKTVKNDNSRFGKFIRINFVDVNGYIVGANIETYLLLEKSRAIRQAKEERTFH  
 IFYLLSGAGEHLKTDLLLEPYNKRFLSNGHVTIPGQDKDMFQETMEAMRIMGIPEEEQMGLRVisGVQL  
 G NIVFKKERNTDQASMPDTAAQKVSHLLGINVTDTRGILTPRIKVGRDYVQKAQTKEQADFAIEALAKA  
 TYERMFRWLVLRINKALDKTRQGASFIGILDIAFGEIFDLSNFEQLCINYTNEKLQQLFNHTMFILEQE  
 EYQREGIEWNFIDFGLDLQPCIDLIEKPAGPPGILALLDEECWFPKATDKSFVKEVMQEQQGTHPKFQKPK  
 QLKDKADFCIIHYAGKVDYKADEWLMKNMDPLNDNIATLLHQSSDKFVSELWKDVDRIIGLDQVAGMSET  
 ALPGAFKTRGMFRVGQLYKEQLAKLMLTRNTNPNVRCIIPNHEKKAGKLDPLHVLIDQLRCNGVLEG  
 IRICRQGPNRVVFQEFRQRYEILTPNSIPKGFMDGKQACVLMIKALELDSNLYRIGQSKVFFRAGVLAH  
 LEEERDLKITDVIIGFQACCRGYLARKAFAKRQQQLTAMKVLQRNCAAYLKLRLNWQWWRFTVKP  
 PLLQVSRQEEEMMAKEELVKVREKQLAAENRLTEMETLQSQLMAEKLQLQEQLQAETELCAEAEELR  
 RLTAKKQELEEEICHDLARVEEEEERCQHQLQAEKKMQQNIELEEEQLEEEESARQKLQLEKVT  
 TEAKLKKLEEEQIILEDQNCKLAKKEKKLLEDRIAETTNLTREEEKS  
 KSLAKLKNKHEAMITDLEERLRREEKQRQELEKTRRKLEG  
 DSTDLSQDQIAELQQAQIAELKMQLAKKEELQAA  
 LARVEEEEAAQKNMALKKIRELESQI  
 SELQEDLESERASRNKA  
 EKQKRD  
 LGEELAEALKTE  
 LEDTLDSTAAQQELRSK  
 REQEVN  
 ILKKT  
 LEEEA  
 KTHEAQI  
 QEMRQKHSQ  
 AVEELAEQ  
 LQEQTKRV  
 KANLE  
 KQTL  
 ENER  
 GELANE  
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 LLQ  
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HEEKVAAYDKLEKTKTRLQQELDDLLVDLDHQRSACNLEKKQKFDQLLAEKTI SAKYAEERDRAEAE  
AREKETKALSLARALEEAMEQKAELERLNKQFRTEMEDLMSSKDDVGKSVHELEKSRALEQQVEEMKTQ  
LEELEDELQATEDAKLRLLEVNLQAMKAQFERDLQGRDEQSEEKKQLVRQVREMEAELERDERKQRSMAVA  
ARKKLEMDLKDLDEAHIDSANKRDEAIKQLRKQAMQKDCMRELDTRASREEILAQAKENEKKLKSMEA  
EMIQLQEELAAAERAKRQAQQERDELADEIANSSGKGALALEEKRRLEARIAQLEEELEEEQGNTELIND  
RLKKANLQIDQINTDLNLERSHAQKNENARQQLERQNKEVKVLQEMEGTVSKYKASITALEAKIAQLE  
EQLDNETKERQAACKQVRRTEKKLDVLLQVDDERRNAEQQYKDQADKASTRLKQLKRQLEEAEEEAQRAN  
ASRRKLQRELEDATEADAMNREVSSLKNLRRGDLFPVVPRRMARKGAGDGSDEEVDGKADGAEAKPAE

Calmodulin 2

GH1-84-PCR-G3F1 (SEQ ID NO:50)

GCTGTCTGAAATACCTGGTCTAACATCCCATGCCGCTCCCTCCTCACGATGCACCCACCGCCCTGAGGGCCCGTC  
CTAGGAATGGATGTGGGGATGGTCGTTGTAATGTGCTGGTCTCTTTTTCTTCCCCTCTTGGCCCTTAA  
GACTTCATTTGTTAGAACCATGCTGGCTAGCTAAAGGGTGGGAGAGGGAAAGATGGGCCCCACCACGCTCTCA  
AGAGAACGACCTGCAATAAACAGTCTTGTGGCCAGCTGCCAGGGACGGCAG

>gi|13477324|gb|BC005137.1|BC005137 Homo sapiens, calmodulin 2 (phosphorylase kinase, delta), clone MGC:1447 IMAGE:3504793, mRNA, complete cds (SEQ ID NO:51)

GGCACGAGGGCGCGGGAGCTGGAACGTGCTGCAGCTGCTGCCGCCGGAGGAACCTTGATCCCCGTG  
CTCCGGACACCCCGGGCCTGCCATGGCTGACCAGCTGACTGAGGAGCAGATTGAGAGTTCAAGGAGGC  
CTTCTCCCTTTGACAAGGATGGAGATGGCACTATCACCACCAAGGAGTTGGGAGACTGATGAGATCC  
CTGGGACAGAACCCACTGAAGCAGACTGCAAGGATATGATCAATGAGGTGGATGCAGATGGAACGGGA  
CCATTGACTCCCGGAGTTCTGACCATGATGGCCAGAAAGATGAAGGACACAGACAGTGAGGAGGAGAT  
CCGAGAGGCGTCTCGTGTCTTGACAAGGATGGAATGGTACATCAGGCCAGAGCTGCGTCACGTA  
ATGACGAACCTGGGGAGAGCTGACCGATGAGGAGGTGGATGAGATGATCAGGGAGGCTGACATCGATG  
GAGATGGCCAGGTCAATTATGAAGAGTTGTACAGATGATGACTGCAAAGTGAAGGCCCGGGCAGCT  
GGCGATGCCGTTCTCTGATCTCTCTCGCGCGCACTCTCTTCAACACTCCCCTGCGTACC  
CCGGTTCTAGCAAACACCAATTGATTGACTGAGAATCTGATAAAGCAACAAAGATTGTCCCAAGCTGC  
ATGATTGCTCTTCTCCTTCCCTGAGTCTCTCCATGCCCTCATCTCTTCTTGCCTCGCCT  
CTTCCATCCATGTCTCCAAGGCCGTATGCAATTCTAAAGTTGAAGCCCTCCCCAGATCCCCTGGGAGC  
CTCTGCCCTCCTCCAGGCCGGATGGCTCTCCCATTTGGTTGTTCTTGTCTTGTCT  
TGGGTGCTGGGTGGCTGCCAGCCCTGTCCCGGACCTGCTGGGAGGGACAAGAGGCCCTCCCCAGGCA  
GAAGAGCATGCCCTTGCGTTGCATGCAACCAGCCCTGTGATTCCACGTGAGATCCCAGCAGCCTGTT  
GGGCAGGGTGCCTAGAGAGGCAATTCCAGAAGGACTGAGGGGGCGTTGAGGAATTGTGGCGTTGACTGG  
ATGTGGCCCAAGGAGGGGTCGAGGGGCCAACTCACAGAAGGGACTGACAGTGGCAACACTCACATCC  
CACTGGCTGCTGTTCTGAAACCATCTGATTGGCTTCTGAGGTTGGCTGGGTGGGACTGCTCATTGG  
CCACTCTGCAGATTGGACTTGCCCCGTTCTGAAGCGCTCTCGAGCTGTTCTGTAATACCTGGTGTA  
ACATCCCCTGCCGCTCCCTCCTCACGATGCACCCACGCCCTGAGGGCCGCTTAGGAATGGATGTGGG  
GATGGTCGCTTGTAAATGTGCTGGTTCTCTTTCTTCCCTCTATGGCCCTTAAGACTTCATT  
TTGTTCAGAACCATGCTGGCTAGCTAAAGGGTGGGAGAGGAAGATGGGCCACACGCTCTCAAGA  
GAACGCACCTGCAATAAACAGTCTGTCGCCAGCTGCCAGGGACGGCAGCTACAGCAGCCTCTGCG  
TCCCTGGTCCGCCAGCACCTCCCGCTCTCCGTGGTGACTTGGCGCGCTTCCCTCACATCTGCTCCGTG  
CCCTCTCCCTGCCCTCCCTGCCACCTGCCCTGCCCTACTCCCCAGCGGAGAGCATGATCCGT  
GCCCTTGCTCTGACTTCCGCTCTGGACAAGTAAGTCATGTGGCAGTCAGTCGCTGGGTTTT  
CCCCCTTCTGTTCAATTCTGCTCCCGCTCCACACCTCCCCACCCCCACCCCCCTGCTTCCC  
CTCACTGCCAGGTGATCAAGTGGCTTCTGAGGGACCTGCCAGCTTGTGAGAATCTTCTCATCCAC  
CCTCTGGCACCCAGCCCTGAGGAAGGAGGGATGGGCATAGTGGAGACCCAGCCAAGAGCTGAGGGT  
AAGGTCAAGGTAGGCAGTGGCTGGACATTTCGGAATGTTGGTTTGTGTTTAAACCGGGCAA  
TATTGTGTTCAAGCTGTGAAGAAAAATATATCAATGTTCCAATAAAATACAGTGA  
GAAAAAAAAAAAAAA

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>gi|13477325|gb|AAH05137.1|AAH05137 calmodulin 2 (phosphorylase kinase, delta) [Homo sapiens] (SEQ ID NO:52)  
MADQLTEEQIAEFKEAFSLFDKDGDTITKELGTVMRSLGQNPTAEELQDMINEVDADGNGTIDFPEFL  
TMMARKMKDTDSEEEIREAFRVFDKGNGYISAAELRHVMTNLGEKLTDEEVDEMIREADIDGDGQVNYE  
EFVQMMTAK

Novel Symporter

GH1-178-PCR-G3F1 (SEQ ID NO:53)

CTGGGTTCTGCGAGACTGGCTGGAGATCACGATGATGCCCTCACTGTCTCAGTGAAACTCAAAACTCCATCACA  
GAGCCATCTCAATGCTCAAGTAGCGGCCCTCCCTGCCAGGCCGGCGACCCGAGTGGCGATCGCGGAGC  
AGGTCGGGCCAGAGGCCCTCCCTCCGAGGCTCTCACCTGCCACAGCCACCGCTGCACCGCAGGAACCCAGCA  
CAGTGGTTAGATTGATAAGCGGCCGCTCGACTAGTCTGAGGTCTGATACTCACTGACTGTCGTAT

Novel Semaphorin

GH1-204-PCR-G3F1 (SEQ ID NO:54)

AAAAAACTACTTCTAAGCTTGTCTTATTGTTGGCAGAATTCAAGGTCTTGTGGCTGTAGGACCGAGGCCAGCT  
TCCCTGCTGATGTCGCTGGAGACTGCTGTCAGCTCCAGAGGCCACCCCATCCTGGACACGTGGCCCTCCATCT  
CAAACCTGCAGTGGGTGTTAACACCTCTCATGCTTCATCTACTTCAGGAATACAGATAGTGTCTGGTGGCTT  
GACGTGATTAAATGAATTGGACTCCATGTGGATTGGCTGTCCTATTCCGAGCTGCGGGCAGGGAGAGGGGC  
CTCGCGCCGCCCTCAGCAGCCGGCGGCCAGGTAGACGAGGGGACGGAAGGACAGACCGACGTGCCAGCTG  
GAATCATGTGAGGGCAACCGGGGAAGGTGGAGCAGATGAGCACACAGGAGCCGCTCCCTACCGCCGCCCTCT  
CAGCATGGAACAGAGGCCCTGGCCCCGGCCCTGGAGGTGGACAGCCGCTGTGGCTGCT

Novel Zn finger helicase

GH1-31-PCR-G3F1 (SEQ ID NO:55)

GAAGGAGAAGATGGTATAAACTGGTCCATCAGTGACAAAGACATTGAGGCCAGATAGCTAATAACCGAACACCTGG  
AAGATGGACCCAGCGGGTACTATTCAAGCACAAAAACATTCTGAAATTGTGACAAACGTGGTATTTATCAAA  
AACTGCCCTTACCAAGAAAAGTCGCTGCTCCTGTGCTCCAGGAGAGGACATCTCTGTATTCTGTTCA  
CCCCCTTGCAGAATACTGCTGTGCTTAATGTTGACCACATGTCTTCAGACATTCTGGATAAACAGTGTG  
ACCGATGTCAATTGCTAGGCACATACAGATTCTGCCAGAAATCTTGAGGCAGTTATCACCTACGACAAACTTG  
ACCACCCAAAGCCAAAACCTTCCGAAAAACCCGACAGTGGTTGATTGATTAAGGCGGCTCGACTAGTCT  
GAGGTCTGATACTCACTGAC

Novel Sugar transporter

GH1-175-PCR-G3F1 (SEQ ID NO:56)

ACCGAGCCAGAGAATGTCACCAATGGCACAGTGGCGGCACAGCAGAGCCGGGCACGAGGAGGTGAGCTGGATGAA  
CGGCTGGCTCAGCTGCCAGGCCAGGACAGATGCTAAATTGGCCTTCAGTGTGGCTCCTTCTGCTCAGTGC  
TCACCCCTGCCCTGGGTATCGTCAAGTATGCCAGGAAGCTCAGGCTGCTGGCAGGCCCTGCTTCGCG  
GTTTCTGCTTGTGATTGCGT

human Plexin-A2 (SEQ ID NO:57)

gctgccggga ggagcggcat ccgcgccaga ctggagcggg agggcggcg aggccagtt  
ctgggaattt ttcagccgag agggcgagcg atccggagag agaccccgag agcttggag  
cgtagggcg tgcagccgccc gcagccagcg gagcaaacct cgaatagat ctgaaagcc  
aggctcccg aggaaatggg actgtgaacg aacccggagag caagaaggg aggaagcc  
gggattgctg atgtcagagg agcccgaaa gtcgcgtgg aaaaatctga agacagccgg

ggctctgtt cttcctcagg agagacaccc cccggccccc ccacacgccc cctcggcgcc  
tccgggtgcc ccctgagagc cggcgacagc gcccagccgg gctgctgccc ggcgacggag  
gactgagggg cgcgcggagc ggagaccggag gagcacttc aggaatacac agataatgtct  
ggtggcttga cgtggatttt aatgaatttg gactccatgt ggatttggtc gtctccctga  
ttccgagctg cgggcaggga gaggggcctc ggcgcgcctc cagcagccgg cggcgccga  
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tctcagcatg gaacagaggg ggcctggcc cggggccctg gaggtggaca gccgctctgt  
ggtcctgctc tcagtggctc ggggtgctgt ggccccccca gcagccggca tgcctcagtt  
cagcacccctc cactctgaga atcgtgactg gacccctcaac cacttgaccg tccaccaagg  
gacgggggccc gtctatgtgg gggccatcaa cccggcttat aagctgacag gcaacctgac  
catccagggtg gtcataaga caggggccaga agaggacaac aagtcttgc acccccccct  
catcgtgcag ccctgcagcg aagtgcctcac cctcacaac aatgtcaaca agctgctcat  
cattgactac tctgagaacc gcctgctggc ctgtgggagc ctctaccagg gggtctgcaa  
gctgctgccc ctggatgacc tcttcatctt ggtggagcca tcccacaaga aggacacta  
cctgtccagt gtcaacaaga cgggcacccat gtacggggtg attgtgcgt ctgagggtga  
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cgtgtttgac atccacaagg gcagcatcac ggacgcctgc ctctctgtgg tggccca  
cttcatggac tttgttcaat cgtcaagaca cccggctggc aaggactccc cttccaacaa  
gctgcttat gccaaggaca tccccagcta caagagctgg gtggagagat actacgcaga  
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ggagcctcgc attcctggga agaggaccc tggcaagctg tcacactggg agtctcagat  
ggaaggacaa gtgatggggta tcaggccca gagttgtctg tcccctgaga ccccatctgt

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gaaggtggtt cttcaagccg agaggcacga gctggggaca gttctgcctc tgtgactgct  
gctttgcattaaaactcatt tgatgtatata tggggaaata atgagaactt tatttaattt  
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aactttgtt taattctgat ttctgtctcc cttccatctt ttctccatt cctccttctt  
tatataatgc ctatccaa atgccagaga aagcagagat gctgagagac attggagaga  
aaatgactgt ctccctttcc ttgaaattaa aaaaaaaaaa aaaaagagaa agaggagaag  
aagaatgatg agcacaagta tgccacaaac acttcgcaaa aacagaggcc agtaaaacct  
ggaattatcc cggcagccag aggatgtgg aacttccaga actttgcaca aattgcaag  
ccatcaagag ctacccctgg ctgactggaa actgagctt atctaccaca cacctgtata  
ttctcatctt ttgagaggag atgtgtaccc agatagtacc aatgtttt gctactgttt  
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tccttcaat ttccctaaag ttactatgag aagtgggggtg aggtgggct cttccagacc  
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ccgcctggag gtgtgtggc caggccctca cgaggttcca tttgaaagtt gatttggaga  
cataggtgtt tgactttgga gttcaactcca atcatccagt ggtccctggc aatt

human Plexin-A2 (SEQ ID NO:58)

MEQRRWPRALEVDSRVVLLSVVWLLAPPAAGMPQFSTFHSENRDWTFNHLTvhQGTGAVYVGAINRVYKLTGNL  
TQVAHKTGPEEDNKSCYPPLIVQPCSEVLTLTNVNKLIIIDYSENRLLAGCSLYQGVCKLRLDDLFILVEPSHK  
KEHYLSSVNVKTGTMGVIVRSEGEDGKLFIGTAVDGKQDYFPTLSSRKLPRDPESSAMLDYELHSDFVSSLIKIPSD  
TLALVSHFDIFYIYGFASGGFVYFLTVQPETPEGVAINSAGDLFYTSRIVRLCKDDPKFHYSVSLPFGCTRAGVEYR  
LLQAAYLAKPGDSLQAQAFNITSQDDVLFAIFSKGQKQYHHPDDSAWCPIRAINLQIKERLQSCYQEGNLELNW  
LLGKDVQCTKAPVPIDDNFCGLDINQPLGGSTPVEGLTYLTSRDRMTSVASYVYNGYSVVFVGTKSGKLKKIRADG  
PPHGGVQYEMVSVLKDGSPILRDMAFSIDQRYLYVMSERQTRVPVESCEQYTTCGECLSSGDPHCGWCALHNMCSP  
RDKCQQAWEPNRFAASISQCVSLAVHPSSISVSEHSRLLSLVSDAPDLSAGIACAFGNLTEVEGQVSGSQVICISP  
GPKDVPVPLDQDWFGLELQLRSKETGKFVSTEFKFYNCSAHQLCLSCVNSAFRCHWCKYRNLCYDPTTCSFQEG  
RINISEDCPQLVPTEEILIPVGEVKPITLKARNLPQHQSGQRGYECVLNQIYGAIHRVPALRFNSSLVQCQNSYYQD  
GMDISNLAVDFAVVWNGNFIIDNPQDLKVHLYKCAAQRESCGLCLKADRKFECGWCSGERRCTLHQHCTSPSSPWLD  
WSSHNVKCSNPQITEILTVSGPPEGGTRVTIHGVNLGLDFSEIAHHVQVAGVPCTPLPGEYIIAEQIVCEMGHALVG  
TTSGPVRLCIGECKPEFMTKSHQQYTFVNPSVLSNPIRGPESGGTMTITGHYLGAGSSVAVYLGQNQTCFYGRSM  
SEIVCVSPPSSNGLGPVPSVSDRAHVDNSLNQFEYIDDPRVQRIEPEWSIASGHTPLTITGFNLDVIQEPRIRVKF  
NGKESVNVCVKVNTTLCAPSLLTDYRPGLDTVERPDEFGFVFNNVQSLIYNDTKFIYYPNPTFELSPPTGVLD  
QKPGSPIILKGKNCPPASGAKLNYTVLIGETPCAVTSETQLCEPPNLTQHVKMVHGMVFSFGSVSISDS  
LLTLPAIVSIAAGSLLLIVIIVLIAYKRKSRENDLTLKRLQMMDNLESRVALECKEAFAELOQTDINELTSDDL  
SGIPYLDYRTYAMRVLFPGIEDHPVLRELEVQGNQHQVEKALKLFAQLINNKVFLLTFIRTLLELQRSFSMRDRGNV  
ASLIMTGLQGRLEYATDVLKQLLSDLIDKLNLENKHPKLLRRTESVAEKMLTNWFAFLHKFLKECAGEPLFMLYC  
AIKQQMKEKGPIDAITGEARYSLSLEDKLIQQIEYTLILNCVNPDNENSPEIPVKVLCNTDTITQVKEKILDAYKNV  
PYSQRPRAVDMLEWRQGRIARVVLQDEDITTKIEGDWKRNLTMHYQVSDRSVVALVPKQTSSYNIPASASISRTS  
ISRYGDSSFRYTGSPPDSLRSRAPMITPDLESGVKVWHLVKNHDHGDKQEGDRGSKMVSEIYLTRLLATKGLQKFVD  
DLFETLFSTVHRSALPLAIKYMFDLDEQADRHSIHDTDVRHTWKSNCPLRFVNVIKNPQFVFDIHKGSITDAC  
LSVVAQTFMDSCTSEHRLGDSPSNKLLYAKDIPSYKSWVERYYADIAKLPAISQDMNAYLAEQSRLHAVEFNML  
SALNEIYSVSKYSEELIGALEQDEQARRQRLAYKVEQLINAMSIES

human deoxycytidylate deaminase (SEQ ID NO:59)

atgagtgaag tttcctgcaa gaaacggac gactatttg aatggccaga gtatTTatg  
gctgtggcct tcttatcagc acagagaagc aaagatccaa attccaggt cggcgcctgc  
atcgtgaatt cagaaaacaa gattgtcggg attgggtaca atgggatgcc aaatgggtgc  
agtgtatgacg tgggccttg gagaaggaca gcagagaata agctggacac caaatcccg  
tacgtgtgcc atgcggagct gaatgccatc atgaacaaaa attcgaccga tggaaaggc

tgttagtatgt atgtcgccctt gttcccctgt aatgaatgcg ctaagctcat catccaggca  
ggtataaaaag aagtgatttt cacgtctgt aaataccatg atagtgacga ggcaactgct  
gcgaggctcc tggtaataat ggccggggta acattccgaa aattcatacc gaagtgcagc  
aagattgtca ttgactttga ttcaattaac agcagacccgaa gtcaaaagct tcagtgagtt  
acatctcatt caatctccag aagattggga ttatcgctt ctaagaggtt gctaattgcct  
ttcatcttga agttacacat aacttcttac tagccagttt ggc当地aaagta ggc当地ctaaa  
aatataaaag cctcaaatct tccttactgt ctctcttgc当地 acatggaaatc  
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tctgaacatc tggcccaagt gaagcatggc atatagtggc cttggaagaa  
caaataatgacag tagcattgaa gtgtttgtc当地 cagagtttag gggaaaccccc  
ccggaaatccg agatagggtg gcacatctgt cctgacacagc gaggagtgta  
aatatttcc tccatttc当地 ctctccc当地 gcacacaggg tgggtggcaca  
gggggggtggg gacgcctgtt gttttggctc aatttgggtt tgggtgtc当地  
tccatttc当地 tttagctgaat aatgagttgt tccctagaga gacagcctgt  
tgccccccaaa gcccatgccc tggcgtggg gcaactgggg ctgtggatgg  
caacatggat gtgttgc当地 tccctcccat gccaacgc当地 ttcatgtaca  
gcaactggag agaaaatcaa ttcctatccc gtgagtgat tggagaaaat  
tggagacagc ttactgc当地 actgttggg ttcggagctc ttctgtgccc  
ctttcaccta cacaagcatc accttc当地 taccgc当地 gggggagcg  
cccccttc当地 ttaatctcat ttaatttta ttaaacatgc tcagtagct  
aggctttctt tattcctaaatg attattacct ttttaaagtg ctcttatatt  
tttattttgt ctctgagatt ttgttattcca cattcttaggg tattctgtaa  
taccaatatt attaaaatct tattaaaatc t

human deoxycytidylate deaminase (SEQ ID NO:60)

MSEVSCKRDDYLEWPEYFMAVAFLSAQRSKDPNSQVGACIVNSENKIVGIGYNGMPNGCSDDVLPWRRTAENKLD  
KPYVCHAELNAIMNKNSTDVKGCSMYVALFPCNECAKLI IQAGIKEVIFTSDKYHDSDEATAARLLFNAGVTFRK  
FIPKCSKIVIDFDSINSRPSOKLÖ--

Please insert the accompanying paper copy of the Sequence Listing, page numbers 1-103, at the end of the application.